

**ARCHITECTURE DEPARTMENT**

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DESIGN REPORT



**HONG KONG TRAMWAY, THE SPINE,  
REINTERPRET THE CHANNEL OF MOBILITY**

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April 1997



HONG KONG TRAMWAY  
**THE SPINE**  
REINTERPRET THE CHANNEL OF MOBILITY



A REPORT  
ON  
THE GENERATION AND EVOLUTION OF  
THE SPINE  
AND ITS FIRST DESIGNED NODE IN  
KENNEDY TOWN

thesis proposal : september 1996  
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## 1. INTRODUCTION

### A Vision For The City

It was an opportunity to think about the city, its people, fabrics, and life. At the first glance all seem ordinary, little stand out. They are in a vibrantly progressing, yet equilibrium state. Only with closer inspection, deeper reflection and wilder imagination would one see that something could be done to make the city a better place. A vision is called for.

Trams have always been fascinating for being open and close to human. Their appeal is the essence of the Tramway, the quality that provoked my vision for the city.



### 1.1. THE SPINE OF HONG KONG

While the handsome harbour and hills make almost monumental image for the city the authentic, ordinary living Hong Kong lies between them.

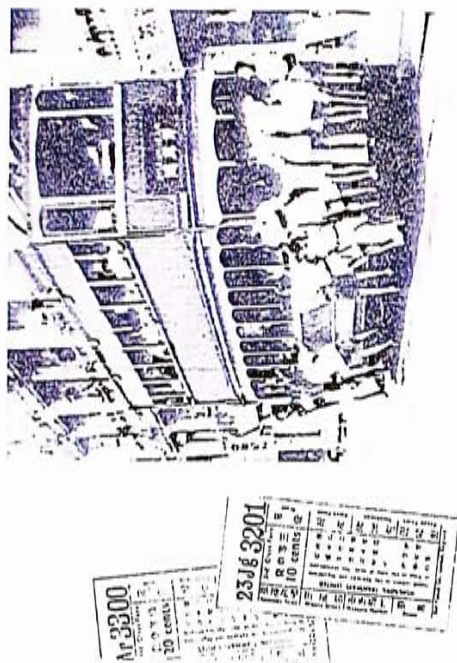
Both physically and historically parallel to the distribution of such living places is the Tramway, a channel of mobility. Spanning 13.3 kilometres from Kennedy Town, the western tip of the island, to Shau Kei Wan in the east, it is an urban corridor which moves through, connects and introduces continuity among the fragmented city. It makes visible the qualities of our distinctive urban fabrics and reveals the stories of Hong Kong --- it is the Spine of Hong Kong.

### 1.2. CLIENT AND SITES

With support from the Town Planning Board and Design Division, District Planning Branch of Planning Department, the Hong Kong Tramway Company initiated the project and invited "us" the design team to submit an urban proposal as well as to start realizing it with the most feasible part. As a consequence of the diversity of the proposal the company would later chair a client board composed of commercial groups with various interests.

The site of the project is a 13.3 kilometres long urban channel, the Tramway, which covers Hong Kong tramlines' operational route from Kennedy Town to Shau Kei Wan and is open for future expansion. As it turns out the project calls for works, thus sites, of various scales and nature. Nine main nodes along the existing Tramway are designated as the sites for large scale urban interventions while a new image for prototypical stops and islands would be the result of later design competitions.



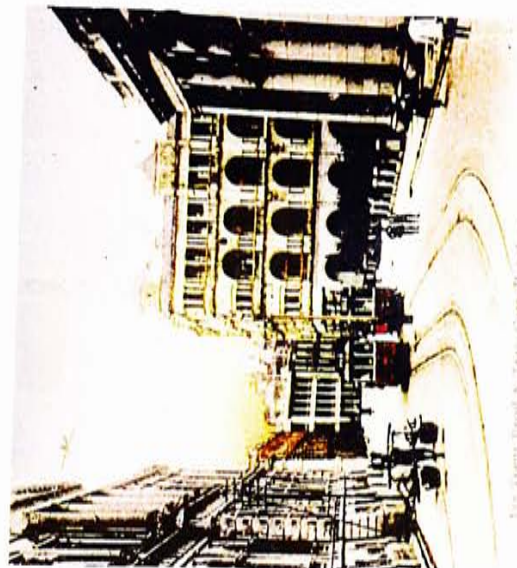


### 1.3. CONTEXT AND USERS

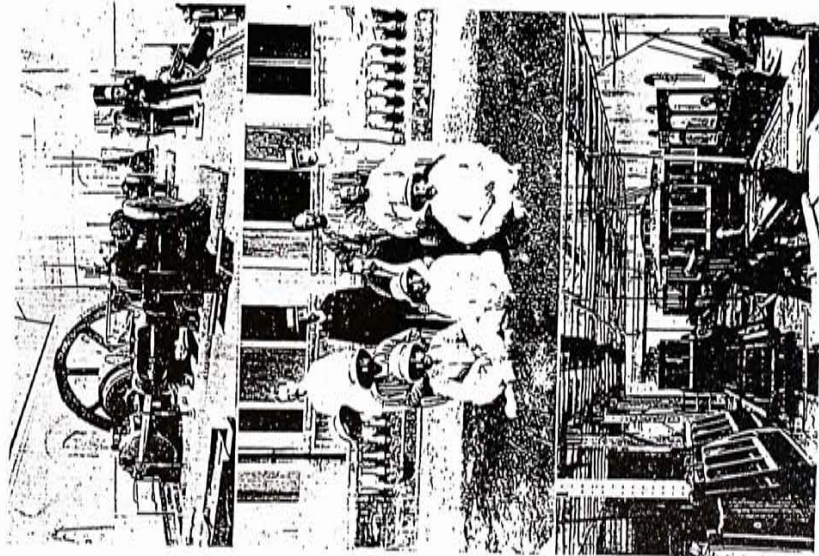
In spite of the recognized social and historic values of the tramlines, which started servicing the island in 1904, general impression people have for the Tramway is seldom positive. It has not displayed its full potential as a strong and remarkable feature of Hong Kong. Besides congested traffic conditions during peak hours, a low level environment along this long channel is the major degrading factor. In such case it is obvious that journeys of any length along the channel cannot be delightful if the romance of nostalgia to the past and of an open-air cinematic museum ride is put aside. It is perhaps now time to be aware that while the city steps into the next millennium, the Tramway should connect people to the future. Its significance would only gradually fade away if a negative image prevails. A re-interpretation of the Tramway is therefore desired.

In fact the Tramway has always been part of local residents' daily life. It interacts with tram riders, street users, may they be pedestrians or shopkeepers, as well as passengers of other transportation modes socially, spatially, functionally, economically and historically --- and the list goes on.

In understanding better the problems and design opportunities of the Tramway, so as to turn it into a remarkable feature of Hong Kong, several urban issues drew special attention : - massing of urban fabrics, district boundaries and dominant landmarks, socially significant places such as markets and MTR stations, under-used areas, connection to greenery and the waterfront, and new plans for the city. They sum up diverse social and physical characters of the existing Tramway and provide a framework of criteria for the designation of Nodes.







1. Installing the generating equipment in the tramway power station, 1904.
2. The men who built Hongkong Tramways—1904.
3. Combination cars from the Electric Railway & Tramway Carriage Works, Preston, being assembled at Hong Kong in the partly completed depot.

## 2.1. CLIENT PROFILE

This project is a venture initiated by the Hong Kong Tramways Company in September, 1996.

The Company has been planning to upgrade its trams so as to provide a better service to a wider range of riders in the near future. In addition to updating its facilities to meet such plans, it is also looking for ways and strategies by which the total environment and image of the Tramway, which refers to the road on which the trams operate, could be improved. A design team has therefore been appointed to carry out exploratory studies and proposals.

Expected products for the project have been first, an overall study of possibilities to re-define urban fabrics along the Tramway; second, design explorations as to how the assets and potentials of the channel are enhanced in various types of sites; third, design strategies for a prototype waiting area; and fourth, design proposal for a site that could best demonstrate the enhanced qualities with the greatest financial feasibility.

After the initial stage of studies which designated nine nodes along the Tramway, several were worked on to greater details :-

- (i) Central - an interchange place of the existing tramline and the new line proposed in Metroplan 1991
- (ii) Wanchai - an observation and information deck for the Traditional Node
- (iii) Admiralty - an art museum in the air
- (iv) King's Road, North Point - an urban strip with a radio station
- (v) King's Road, Quarry Bay - a cafe in the air

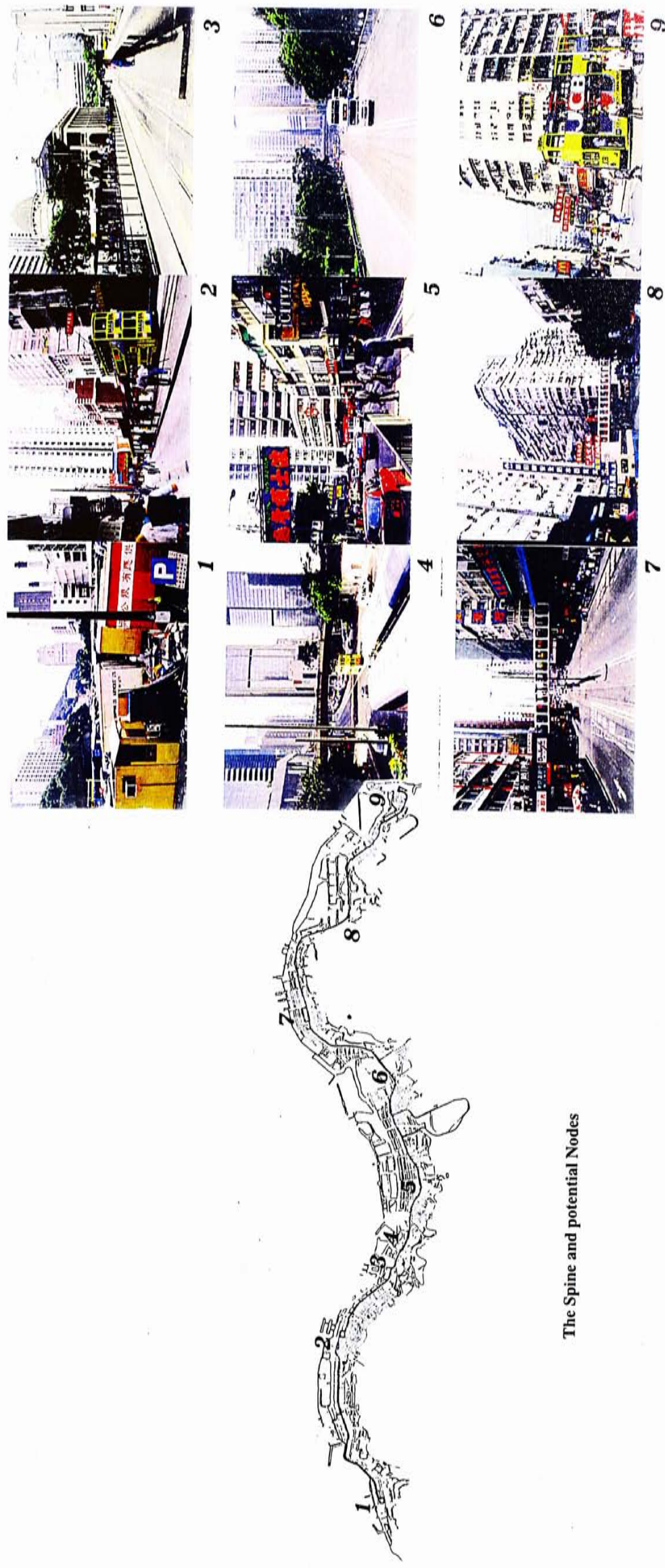
These interventions act as meeting points of daily users at the gaps between urban fabrics and announce the arrival at the nodes. In addition to the supplementary program as described above, each of the studies takes into consideration the waiting, boarding and alighting sequence of tram riders, the connection between the stop and the pedestrian sidewalk, and the surrounding urban landscape.



The following program is written specifically for the fourth part of the project. Integrated with the previous parts as a further effort to redefine urban fabrics and to update facilities of the Tramway, it should be a pilot project of the proposed nodes of which three were suggested to the client as the most "workable" sites : -

- (i) Kennedy Town - a terminal in the future town centre as the first vertebra of the Spine
- (ii) Wanchai - the Traditional Node
- (iii) Shau Kei Wan - seafood market and waterfront promenade

Kennedy Town was chosen to be the major site for redevelopment as it is of the worst condition in terms of integration of urban fabrics, and its significance as the terminating place of the channel has been far under-addressed.



The Spine and potential Nodes



## 2. 2. BRIEF FORMATION

### 2. 2. 1. The Spine

In order to update the facilities of the Tramline, which includes employing new air-conditioned trams with skylights, renewing tramstops and building interventions along the route, the Hong Kong Tramways Company would raise the fare by 80% and invite private developers to join the venture. Their goal would be to re-establish the image of the channel of mobility so that it is a pleasant environment composed of fragments and nodes.

The choice of Kennedy Town as the pilot site was the result of recognizing and considering its potential and the present relatively low land value which makes the development financially feasible. Major users would be residents of Central and Western districts as well as tourists during weekdays, and a wider range of visitors is expected over weekends.

On the other hand, the client is keen to introduce a collection of interventions along the Tramway at the gaps between urban fabrics as suggested in the urban proposal. Such interventions would be new attraction and meeting points which provide direct physical and visual connection to the tramlines. Their programs would be simple but would directly supplement those of the urban scene. Possible scenarios include :-

- Tourist information centre - Connate Road West north of Western Market
- Cafeteria / beer house - Queensway near Chater Garden, Causeway Road near Victoria Park
- Art Gallery - Queensway, south of Admiralty sitting area
- Radio station - King's Road, North Point
- Tea house / book shop - King's Road near Tong Chong Street, Quarry Bay
- Nursery / daycare centre - Shau Kei Wan Road, west of Sai Wan Ho

These are programmed to supplement the social and commercial functions of their sites and would employ a coherent system of organization with other stops, as well as with the terminal in Kennedy Town.

The client welcome expressive and varied architectural language for all nodes along the Tramway as long as certain elements keep them immediately identifiable as parts of the tram system. Basic organization and design of the waiting area, which would be the outcome of later design competitions, should be standardized in such a way all stops work with the same system. The design team is in a way employed to provide a total framework for upcoming design activities. The project in Kennedy Town is therefore, for the client, an experiment as well as a reference for further development of the whole urban story.





2. 2. 2. The First Node - Kennedy Town

In forming the brief for Kennedy Town, the first vertebra and pilot node of the Spine, the client looked for a small but welcoming, public and meaningful building. It was soon decided to be a tram museum.

Trams and the Tramway are the major subjects to be displayed. Their history, development and evolution should be illustrated in such a way that the story of Hong Kong social and urban forms are brought out. Since the image of the company has always been related to a sense of nostalgia to the historic Hong Kong the client takes it as the theme for the museum.

After much research on the history of Hong Kong trams a preliminary brief with a schedule of accommodation shown below was generated. The client has not requested any special spatial relationship between programmatic elements and the design team was let free to decide as to where and how messages are carried through displays.



Required Schedule Of Accommodation  
Summary

sq.m	program
425	Terminal plaza
490	Commercial elements
1340	Galleries
420	Supporting elements
2650	total required area ( circulation excluded)

Breakdown

sq.m	program
50	waiting area
50	boarding and alighting area ( 2 trams )
5	passenger information kiosk
5	regulator's stand
70	tram turntable
215	tram tracks on right of way
30	public drop-off area
425	required area

3.2. Public elements

sq.m	program
180	ticket sales lobby and reception
160	museum shop
150	cafeteria
510	required floor area

3.3. Galleries

sq.m	program
130	auditorium (40 seats )
270	gallery of the 1912 double decker ( 1 : 1 model )
150	gallery of tramcar components ( object display )
110	gallery of tramcar operation ( demonstrative model )
70	gallery of evolution of cars ( 1 : 3 models )
50	gallery of company history ( documents, artifacts, photographs )
280	gallery of development of the Spine ( photographic images, models and illustrations )
120	"drive-and-ride" simulation room
70	"international tram stories" model workshop
90	library and information centre
1340	required floor area

3.4. Supporting elements

sq.m	program
90	museum office
17	pantry
8	private restrooms
50	public restrooms
5	janitor's closet
90	storage
60	technical support rooms
100	mechanical and electrical services
420	required floor area



## 2.3. SITE CONDITIONS

### 2.3.1. The Tramway

Trams started serving Hong Kong island in 1904 by the Hong Kong Tramway Electric Company Ltd. which changed its name to Hong Kong Tramway Company Ltd. in 1910. Track works started as early as 1903 when the route was still a relatively flat but narrow, congested and badly paved road.

The Tramway continued to grow as the dominant channel of mobility of Hong Kong island, and still remains so nowadays. Besides trams and buses, public light buses joint the channel in 1971, followed by the Mass Transit Railway, which has the greatest impact on transportation and living pattern of Hong Kong, in 1982. On the other hand the rise of motorcars has nevertheless shaped the channel-scape.

As the findings of in-depth site visits and issue analysis, the condition, problems and design opportunities of the Tramway could be summarized under the following headings : -

- i. forgotten assets
- ii. traffic interchange points
- iii. lost spaces
- iv. streetscape
- v. environmental enhancement
- vi. place-making

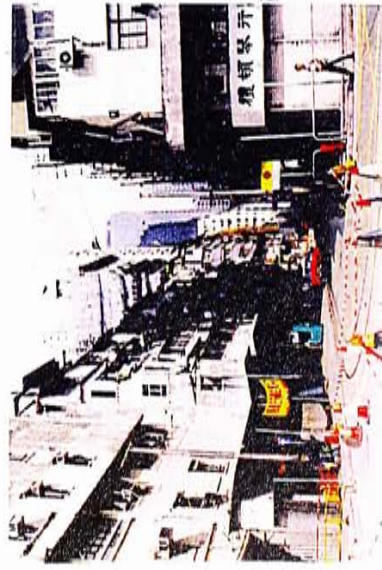
They are common phenomena along the whole channel and form the basis of performance requirements in designing nodes.

### 2.3.2. Kennedy Town

Kennedy Town has been an unloading dock since its earliest settlement. Over the years it has become an old town isolated from the rest of the much more vibrant Western district by an industrial zone. Recently, however, though most commercial growth of Hong Kong island has taken place in Central and expanded eastward, the western district is on its way to be re-developed. While a number of projects are under construction in Sai Ying Pun, Kennedy Town, with its vast piece of out-dated industrial land and old blocks of medium rise residences, becomes the next hot spot for future residential and commercial developments. Many developers have, indeed, "nailed" potential lots in preparation to purchase them.

Kennedy Town has long been notorious for and haunted by its three pieces of nuisance : an incinerator, a vegetable wholesale market, which has been removed, and the Kennedy Town Abattoir. While the abattoir is scheduled to be moved away in a few years' time, the former vegetable wholesale market is currently a parking lot and the incinerator has been closed down for several years.

As an early strategic plan this existing piece of crown land, which is currently rented to the Urban Council, would become mixed-used developments. On the other hand, Green Island Reclamation proposed in Metroplan will definitely bring in new residential and commercial developments and transportation networks. Kennedy Town will not remain as it is, and the selected site for the terminal will become part of the future town centre.





### 2.3.3. The Site

The selected site sits on a flat piece of land at the north-western tip of Kennedy Town, Hong Kong island, and is immediately adjacent to the existing Tram terminal, which is far under-addressed. It is 200m away from Kennedy Town bus terminus and a block behind the waterfront. Surrounding are mostly old residential buildings of 15 to 20m high with commercial storefronts on the street level. Several are more recently built residential towers. There is a dominantly large piece of open land to its west, facing the abattoir, left behind by the removal of the vegetable wholesale market. The whole area will be re-developed as soon as the abattoir is moved, when developers make their step.

**Site Area = 1608 sq.m**  
 Land use as indicated in the Kennedy Town and Mt. Davis Outline Zoning Plan, March 1994  
 = Comprehensive Development Area

**Building lot area = 732 sq.m**  
 Address : 19, 19A Cadogan Street, odd numbers from 101 to 119 Catchick Street

Class of site = C

Permitted plot ratio for development between 27 and 30 m of height = 8.8

Site coverage over 15 m = 88 % = 644 sq.m ( to be modified due to the nature of the project )

**Public plaza area = 876 sq.m**  
 Action imposed : Pedestrianization

**Proposed land use**  
 = Tramline terminal plaza, tram turntable, tram stop, boarding and alighting platforms, landscaped sitting area

**Rights obtained**  
 = Right of way for the Tramlines as proposed, accommodating also its future extension to the Green Island Reclamation area



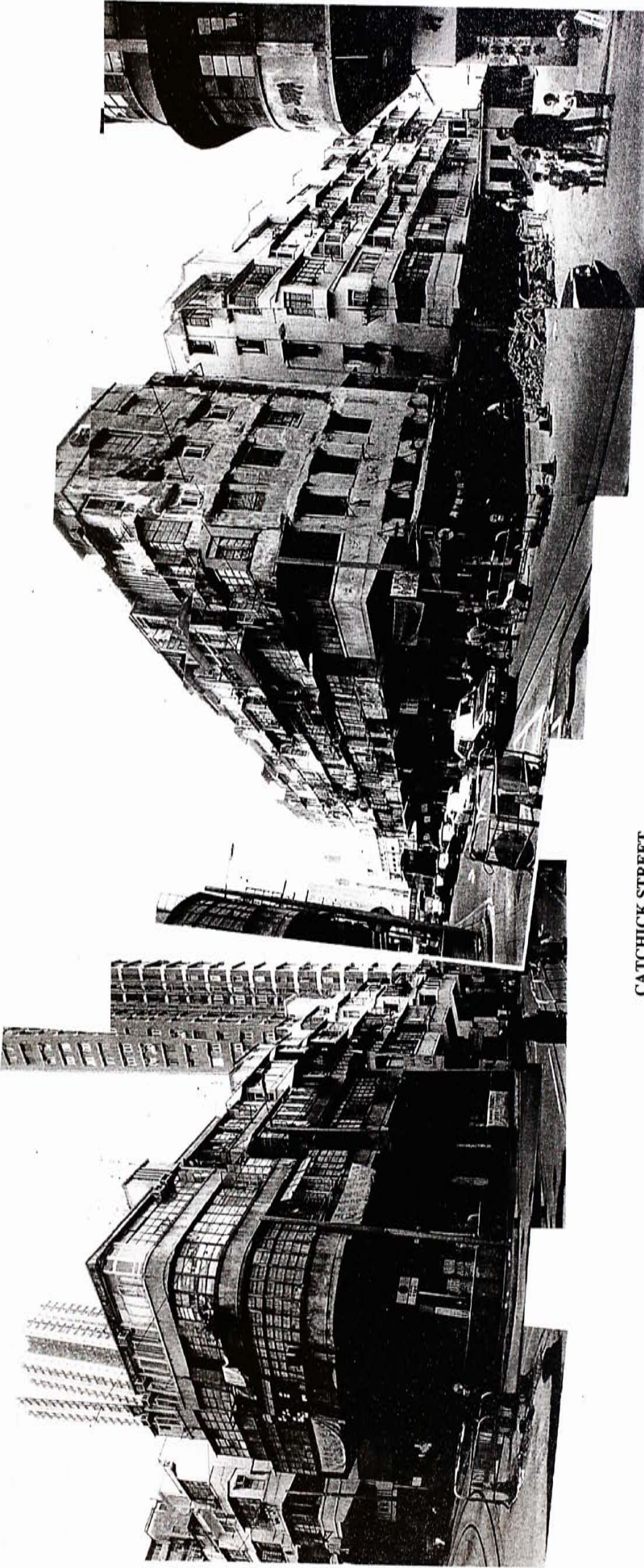
site boundaries

The building lot is composed of 12 old building lots. Located at the meeting edge of an industrial area and an old residential area, it is currently almost deserted and is part of the site proposed in the Kennedy Town Five Streets-Urban Renewal Scheme by Land Development Company, Hong Kong. On the north of the street block of the site is Belcher Bay, the eastern part of



which is undergoing reclamation for a traffic route and a park. On its opposite sides on Catchick Street and Davis Street are old street blocks which would undergo renewal as well. The ex-vegetable wholesale market and to-be-removed-abattoir form a large piece of land zoned for comprehensive development in the near future. It is currently under-used. The Green Island Reclamation proposed in 1991 will change the surrounding urban form in a few years' time. It can be anticipated that the future neighbourhood consists of residential and commercial mixed used towers.

Since the site is rather tightly protected by surrounding buildings, the most adverse climatic factor and condition affecting it would be solar gain on good days. Afternoon heat gain on its west side would be especially influential because Cadogan Street is a relatively wide road.



CATCHICK STREET

The site and surrounding buildings



## 2.4. DESIGN CONSTRAINTS AND OPPORTUNITIES

### 2.4.1. Vision of the Spine

As a visionary urban design project several assumptions are made in order to solidify foundation of the development in Kennedy Town, as well as for interventions along the channel. They include : -

- i. future developments in Kennedy Town and on the Green Island reclamation area bring in the necessary population density to support the vitality of the area.
- ii. planning and zoning codes allow development of interventions in selected sites as proposed.
- iii. right of way is granted to the Tramlines for changes and expansion of routes as proposed.
- iv. aerial right above tramtracks belongs to the Tramway Company in the same terms as in the lease concerning the right of way of tracks.

### 2.4.2. The Node in Kennedy Town

To name Kennedy Town the first node is logically convincing but commercially adventurous since it has been partly deserted and isolated for some time. In addition, the immediate context of the site used to be a nuisance to the public and an unfriendly, almost unsafe place. Extra effort is needed to convince the public that although it is different from the heart and central area of the Spine, it is as important as its first vertebra.

In fact, since Green Island Reclamation will bring in new fabrics and population thus vitality to the area, as long as its program keeps the development commercially sustainable, it should be able to bear the vision of being part of the future town centre.

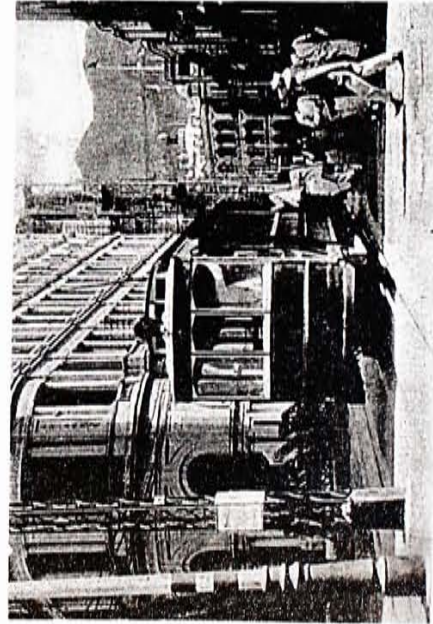
Although Kennedy Town is at one end of the channel it is no different than other nodes in terms of re-defining urban fabrics and improving the environment. It should demonstrate how trams enrich the essence of a place. That its existing context is undesirable provides the project with a wide range of design opportunities. Areas open for exploration include : -

- i. sense of arrival to a Node;
- ii. role of trams in a place, especially a terminal;
- iii. activities and use of a public plaza;
- iv. relationship of buildings and trams.

### 2.4.3. The Tram Museum

Constraints that most affect the building and design opportunities thus created include : -

- i. the building lot is relatively narrow but shaped in a proportion very close to that of trams.
- ii. full size trams would become almost theatrically large in the building.
- iii. the potential public plaza in front of the building must be animated with events and activities which are integrated with the building program so as to keep the project commercially viable.
- iv. the plaza may not be an appropriate delivery and drop off area for the building if pollution should be kept minimum.
- v. form, function and characteristics of surrounding urban fabrics may be subjected to more frequent changes than the building.



### 3. PROCESS

In order to make a stronger whole Nodes are identified as anchors of fragments. They must speak for themselves, enhance living patterns of people and activate forgotten opportunities. Interconnected, they are to form a dynamic framework for the distinctive fragments like the way trams work for short trips, from point to point.

### 3.1. ESSENTIAL OBJECTIVES

#### 3.1.1. The Spine

To re-interpret the Tramway as additive fragments joint at nodes in which interventions are injected to update and supplement urban facilities.

#### 3.1.2. The first vertebra - Kennedy Town

To mark the head of the Tramway in such a way that urban fabrics are integrated, forgotten assets recruited, potential reclaimed.

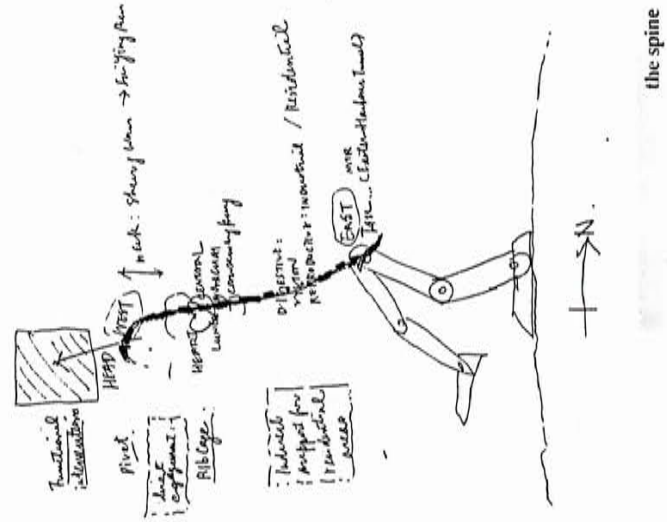
### 3.2. THE SPINE AND ITS NODES

Analysis of the form and problems of the Tramway results in a strategy which addresses the fragments of urban fabrics with the motion of trams as well as people along the channel :

In order to re-define urban fabrics and improve the environment along the Tramway, 9 Nodes are designated to enhance the sense of arrival to places. They are ---

- i. Kennedy Town -
- ii. Western Market -
- iii. Statue Square, Central -
- iv. Queensway Admiralty -
- v. Johnston Road, Wanchai -
- vi. Victoria Park -
- vii. King's Road, North Point -
- viii. King's Road, Quarry Bay -
- ix. Shau Kei Wan .

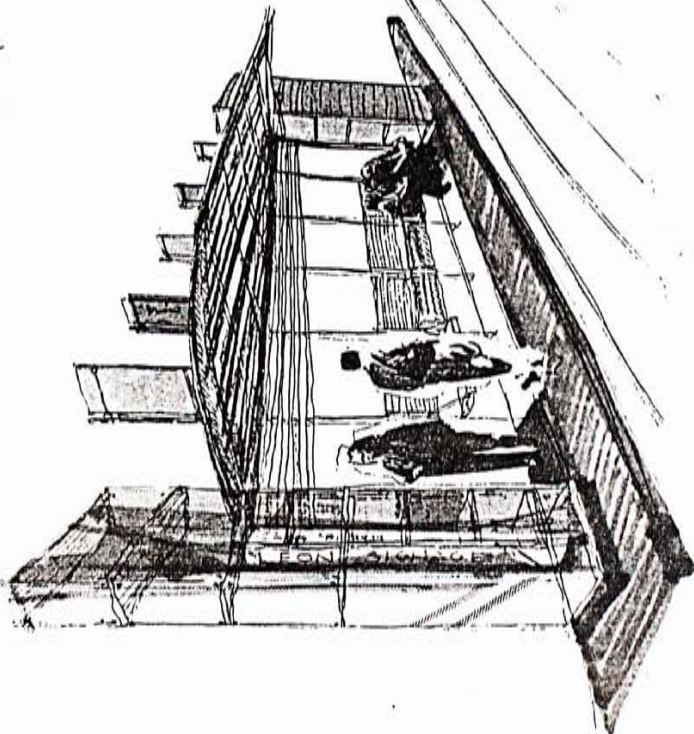
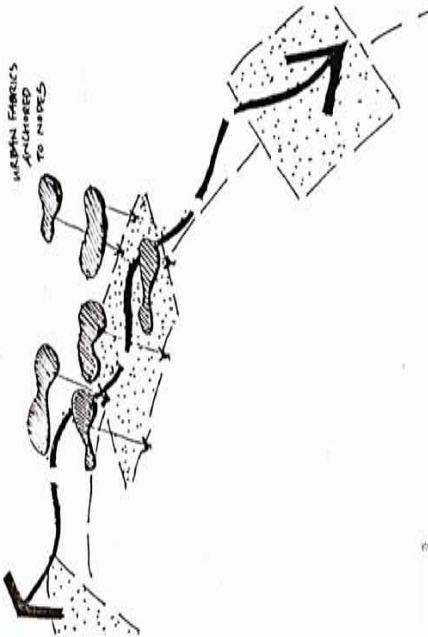
Interventions are introduced in and between nodes, thus in intervals along the channel. They are new programs, buildings and landscaping elements for distinctive neighbourhoods which are meant to be different.



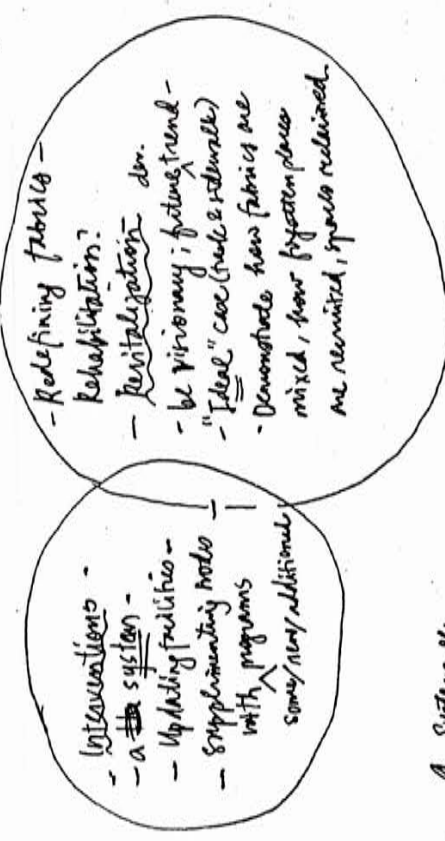


### 3.2.1. Exploratory Concepts

Imagination. Free associations. Metaphors.  
Hypothesis. Analysis. Exploratory concepts.  
Would they ever boil down to an urban proposal?



Research  
1/11



**Interventions - a system -**  
- Updating facilities -  
- Supplementing nodes with programs  
- some/new additional

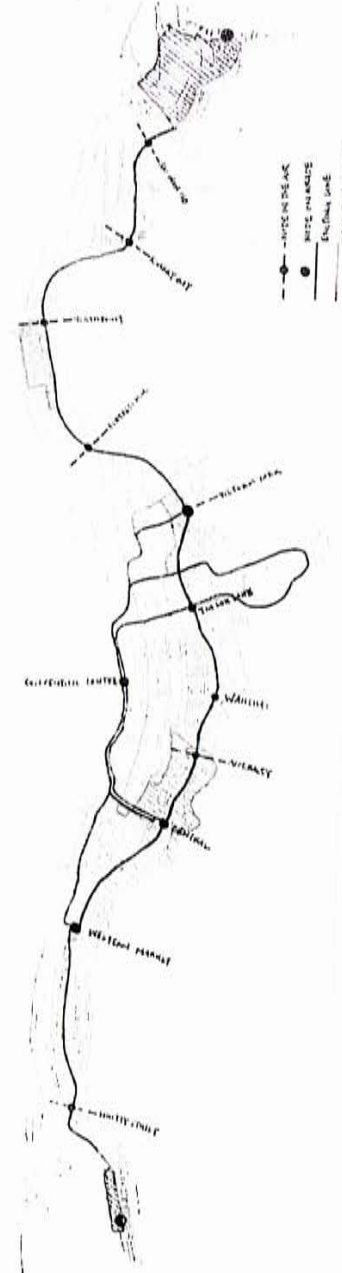
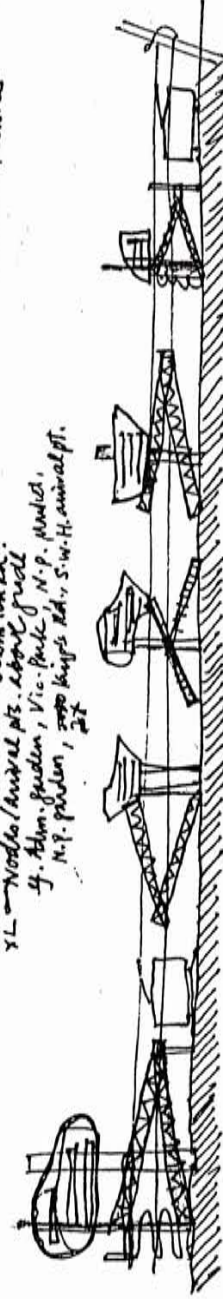
**Redefining fabrics - Rehabilitation?**  
- Revitalization dev.  
- be visionary; future trend -  
- "Ideal" case (real & achievable)  
- Demonstrate how fabrics are mixed, how program places are recruited, spaces reclaimed.

Common Components & Environment

A System of Interventions in the city, along the channel.

S - stop off/visitors  
M - Ferry stops of Pellen St, Canning Bay  
L - Nodes on Gade of Western Market  
XL - Nodes/landscaped pts. about fuel  
4. Admin. building, Vic. Park of N.P. Market, N.P. Pellen, 200 King's Rd, S.W. H. animal pt.

A place that looks fabric can integrate lost spaces, reclaiming forgotten assets, improves the env., enhances the urban centre

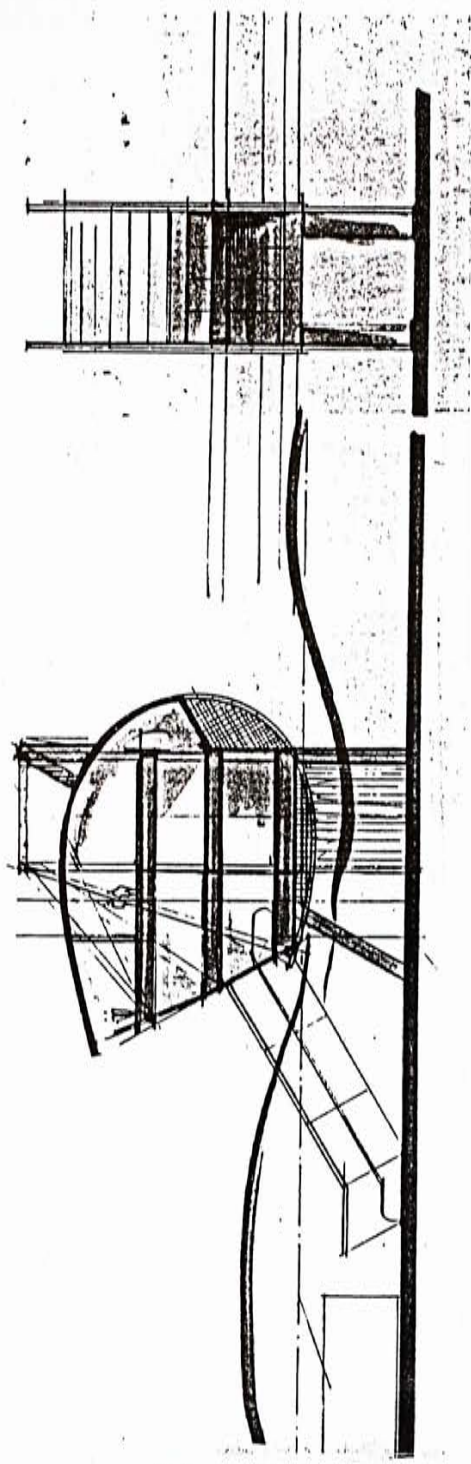
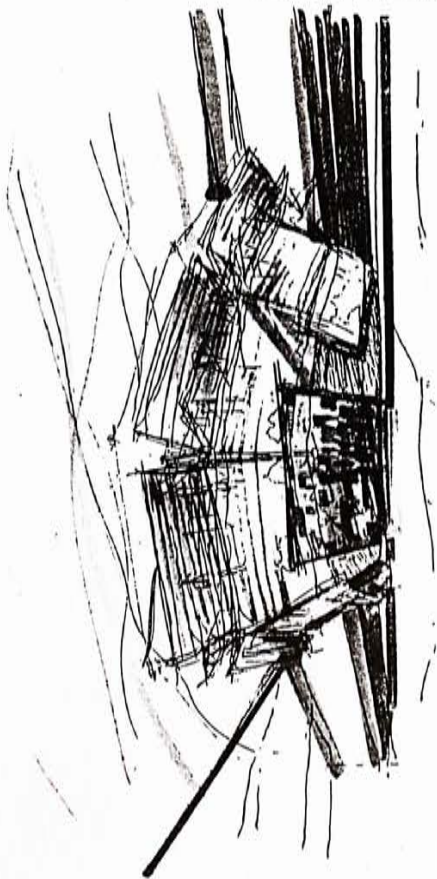


Legend:  
- ROAD IN THE AREA  
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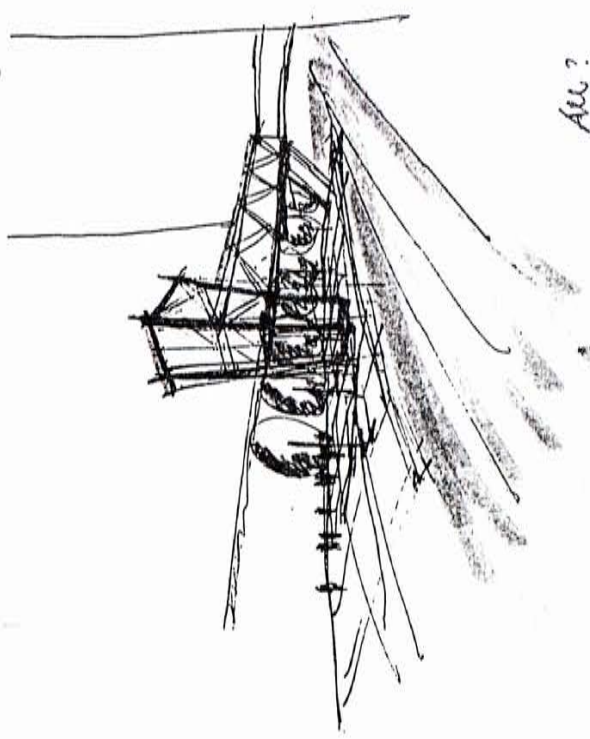
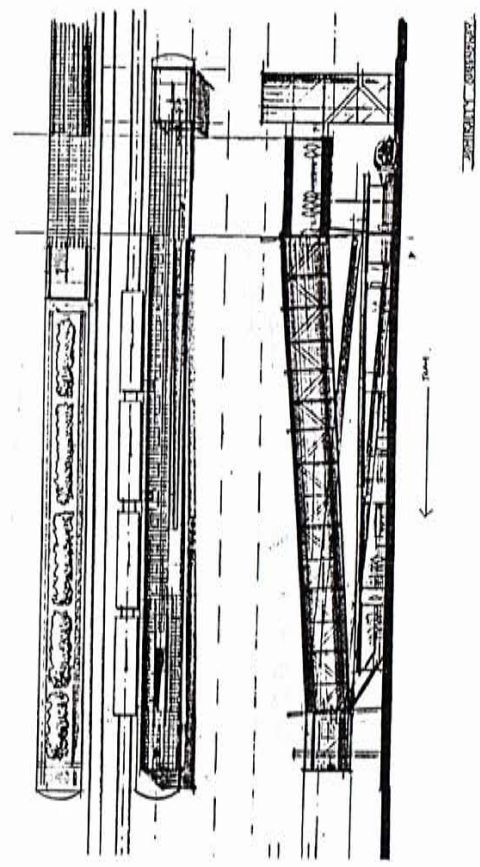
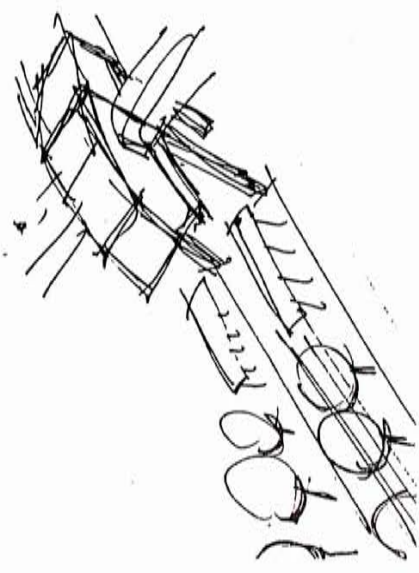


### 3.2.2. Design Story

It went like a spiral - from understanding the problem to generating ideas, from understanding the ideas to generating design. Studies went across scales. So did the horizon of concepts for free.



footbridges with new programs



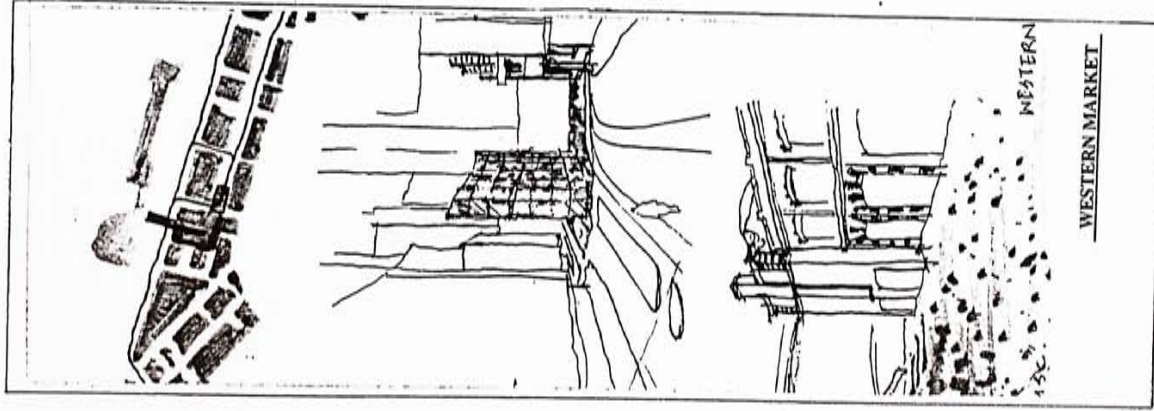
All?

an urban strip introducing greenery to waiting areas as well as to the surrounding environment



### 3.3. URBAN DESIGN ISSUES AND GOALS

Concerns developed during the process of understanding the Tramway and generating the Spine become design issues and goals for its Nodes.



#### 1. Rehabilitate urban centres

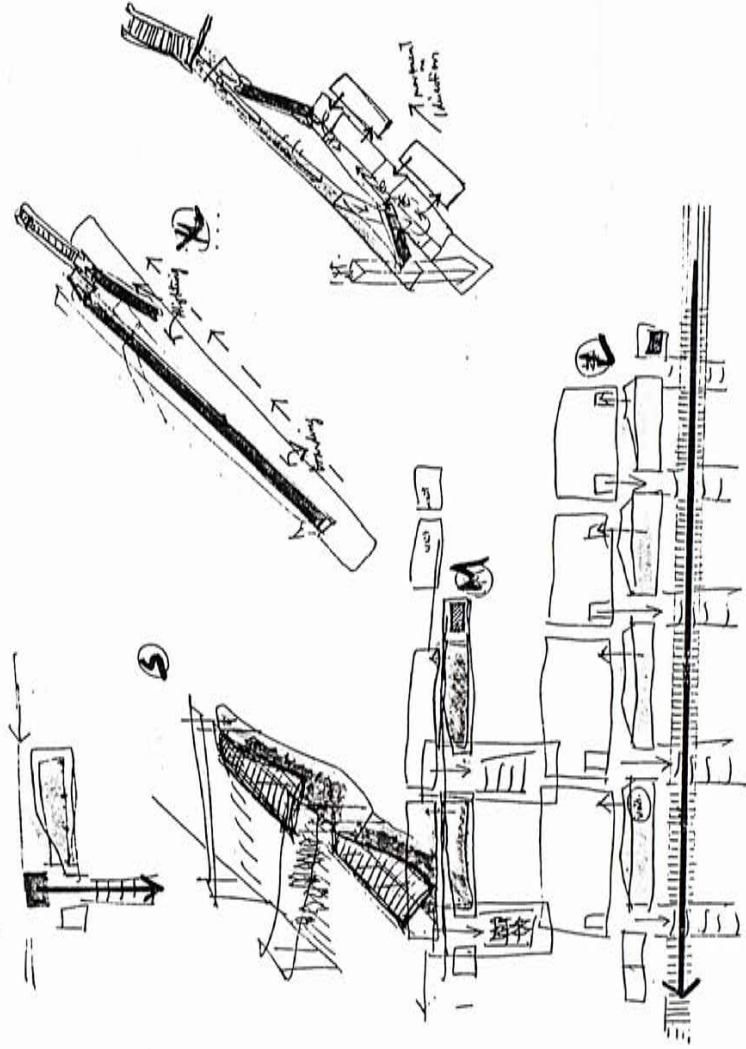
- utilize forgotten assets and lost spaces in town
- initiate environmental enhancement plans in order to green the city
- change under-used, unsafe and isolated areas to friendly places
- integrate both physically and functionally with neighbouring fabrics, which are envisaging changes and growth, and provide linkages to socially significant places such as markets and sitting areas
- program open spaces in such a way they are fully utilized, safe and beneficial to the neighbourhood and to the city
- make edges of sites transitional zones instead of fencing off surrounding urban fabrics

#### 2. Provide pleasure and convenience for users

- work for an ideal boarding, alighting and waiting place of the Tram system which provides passengers with physical comfort such as climatic protection, shading, sitting etc.
- provide tram riders with the convenience of getting directions, information, news, refreshments and telecommunication services in a pleasant but space saving manner so that they could become prototypes in less spacious stops
- announce the arrival of the tram to stops by means of architectural articulation and expression
- make nodes lively and leisurely places with a strong sense of presence, where one would enjoy spending half a day, as well as just passing by, hanging out for a while

#### 3. Enable smooth traffic flow

- make vehicular flow as smooth as possible around the sites
- designed streets for people instead of for traffic, make walking environments physically comfortable for users
- provide crossing points for pedestrians as part of the linkage system to surrounding fabrics in order to avoid the formation of "uncrossable" roads
- work for an ideal case in which pedestrians, trams and other vehicles co-exist in harmony

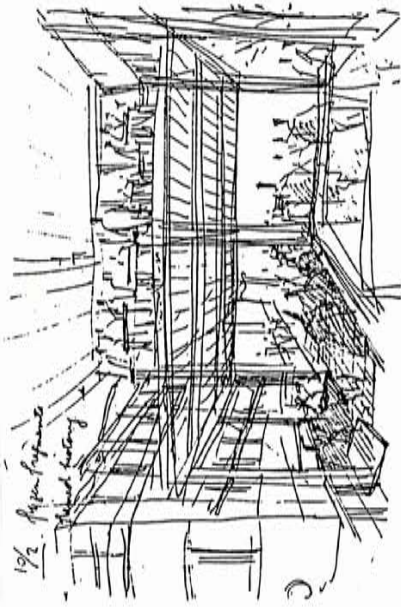




### 3. 4. BUILDING DESIGN ISSUES AND GOALS

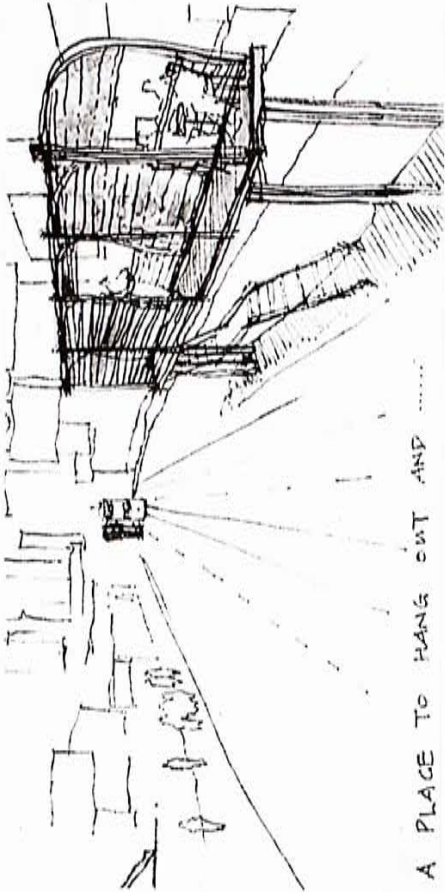
#### 1. The Tram experience

- interaction between people, spaces and trams should contribute to the character of certain spaces
- make visual connection between major activity areas and the tramtracks and stop
- integrate the terminal with the rest of the building in such a way trams become the essence of the complex
- provide comfort and convenience for tram riders and plan for smooth pedestrian flow



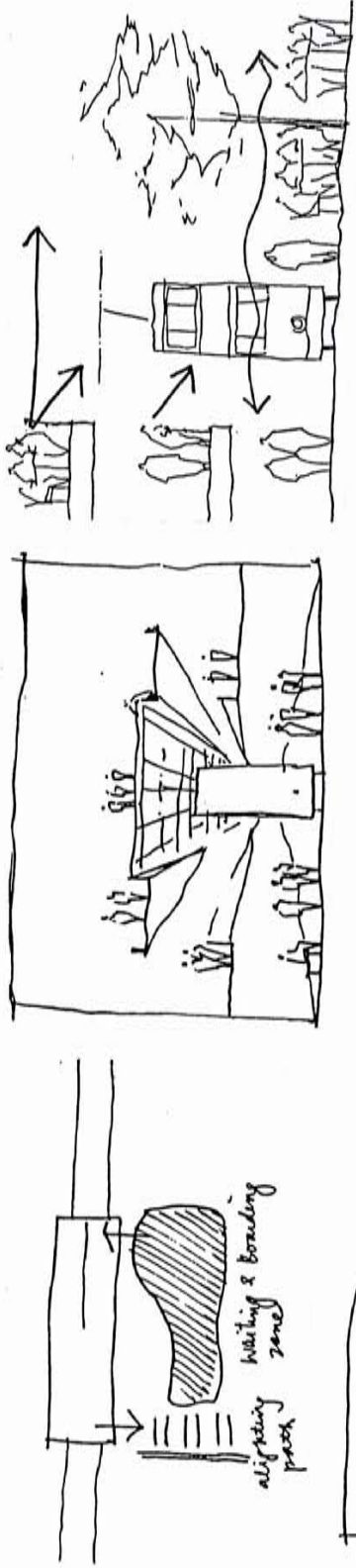
#### 2. Circulation and connections

- size and make connections between spaces enable smooth and simple internal circulation
- arrange programmatic elements to minimize difficulties in way-finding
- enhance programmatic interactions which bring about excitement and convenience with physical or visual connections
- address and use transitional zones between outside and inside where appropriate as in traditional shop front arrangements to animate the street
- provide easy accessibility for the disabled and elderly



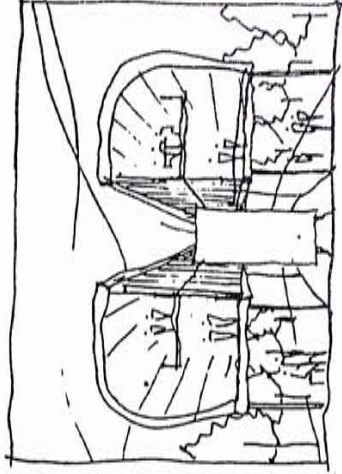
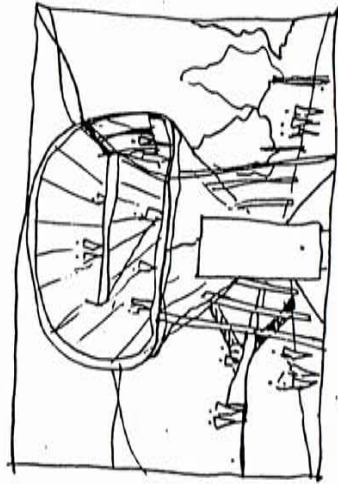
#### 3. Climatic and environmental concerns

- take daylighting and shading into consideration so that sunlight is part of forming interior spaces as well as exterior places
- allow natural ventilation where it is suitable and helpful in creating the vitality of places like the cafeteria
- echo the landscaping concept of the tram stop and plaza with that of the others along the tramway [optional]



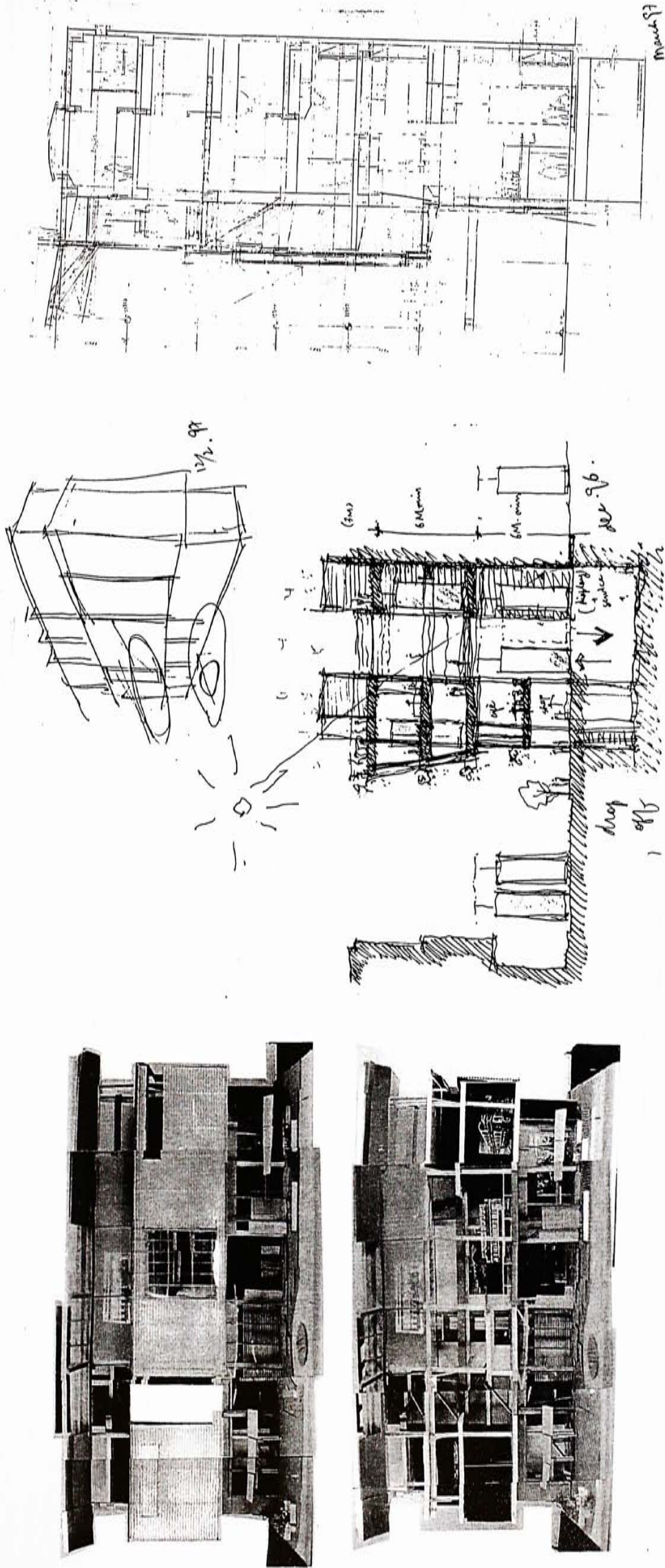
#### 4. Articulation and expression

- state the identity of the project as the Spine's terminal
- suggest certain common features or organizing strategies for all interventions so that they are identifiable and coherent among urban fragments
- design the building specifically for trams
- use materials and construction method that are economical and durable for easy maintenance





### 3. 5. EVOLUTION OF THE BUILDING



#### Some early ideas :-

Orient the building so that the relatively long facades face north and south, parallel to the tram tracks. Run the tram through, under, along or in the building and ensure visual connection between tram riders and building users. Make the building move with the trams. Make the Spine Gallery part of the ride...Arrange fragments in a linear way to reflect the Spine. Accentuate the double decker experience of tram riders as well as building users. Make terraces that overlook the tram stop, the open space and the waterfront. Program and introduce friendly urban spaces along edges of the site. Zone the waiting area of the tram terminal into boarding and alighting areas to avoid cross traffic. Provide exit paths for arriving passengers which direct them to the welcoming area of the building

## 4. FINAL PROJECT

By definition nothing is final for this project; while life goes on with time urban fabrics change constantly forever. Thus whatever you find is in progress, part of a certain process. The project in Kennedy Town is certainly a pilot test of ideas concerning the interaction of trams, human beings, urban fabrics, time and life.

### 4.1. THE SPINE



Catchick Street Kennedy Town	Western Market Sheung Wan	Statue Square Central	Queensway Admiralty	Johnston Road Wanchai	Victoria Park Causeway Bay	Chun Yeung Street North Point	1030 King's Road Quarry Bay	Main Street East Shau Kei Wan
WESTERN TERMINAL PLAZA tram museum	WESTERN MARKET PLAZA tourist information kiosk	INTERCHANGE PLAZA news-stand and cafeteria	PROGRAM IN THE AIR art gallery and cafeteria	PEDESTRIANS' PRECINCT information kiosk and cafeteria	PROGRAM IN THE AIR central library cafeteria II	URBAN STRIP paging services sub-station	PROGRAM IN THE AIR small community nursery	EASTERN TERMINAL PLAZA market square and district information kiosk



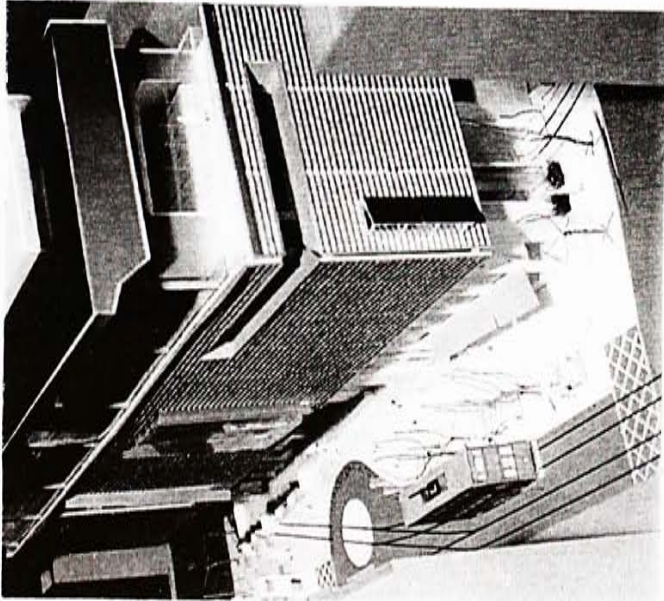
The Spine - project involves work in four scales ranging from large scale urban re-development to small scale renovation and upgrading of tram stops and their furniture.

SCALE OF WORK

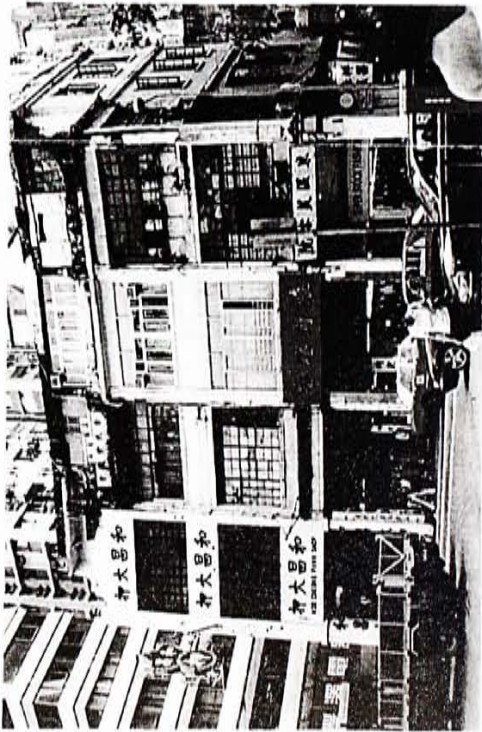
NODES

TERMINAL / EXTRA LARGE	Nodes that involve pedestrianizing streets, re-routing tramlines and changing land use	KENNEDY TOWN (terminal) WESTERN MARKET CENTRAL WANCHAI
LARGE	Nodes that involve extending existing structures, particularly bridges, to house new programs which make use of the vitality of trams and to improve circulation	SHAU KEI WAN (terminal) ADMIRALTY CAUSEWAY BAY QUARRY BAY
MEDIUM	Nodes and busy stops that come in form of an urban strip and integrate supplementary programs or services with the boarding platform for the convenience of passengers	NORTH POINT BUSY STOPS BETWEEN NODES
SMALL	All other tram stops on islands and pavement of which facilities including lighting, information display and shelter finishing are upgraded	TYPICAL STOPS ALONG THE SPINE

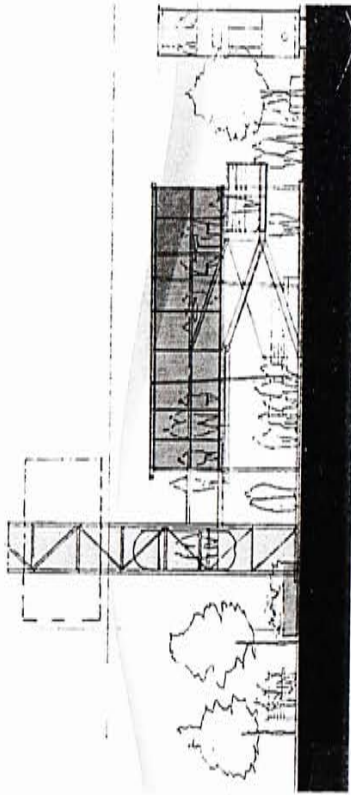
1. Kennedy Town is used to demonstrate the integration of a tram terminal with surrounding events and urban fabrics.  
2. A social study on Johnston Road serves as background research information for preservation of a verandah building at Wanchai.  
3 & 4. Option for an information kiosk at Wanchai.



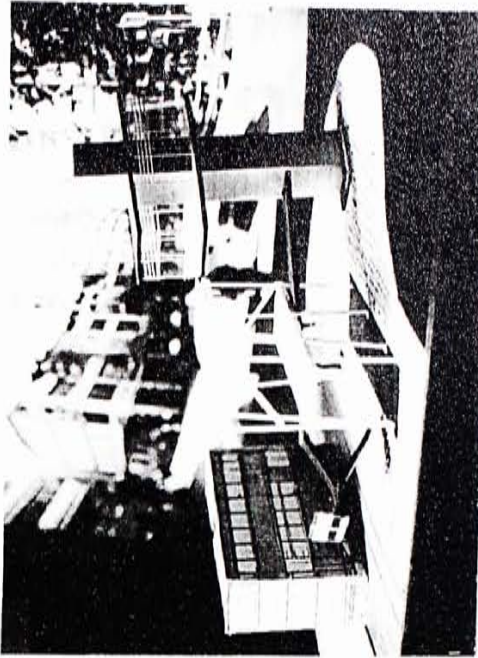
1



2



3



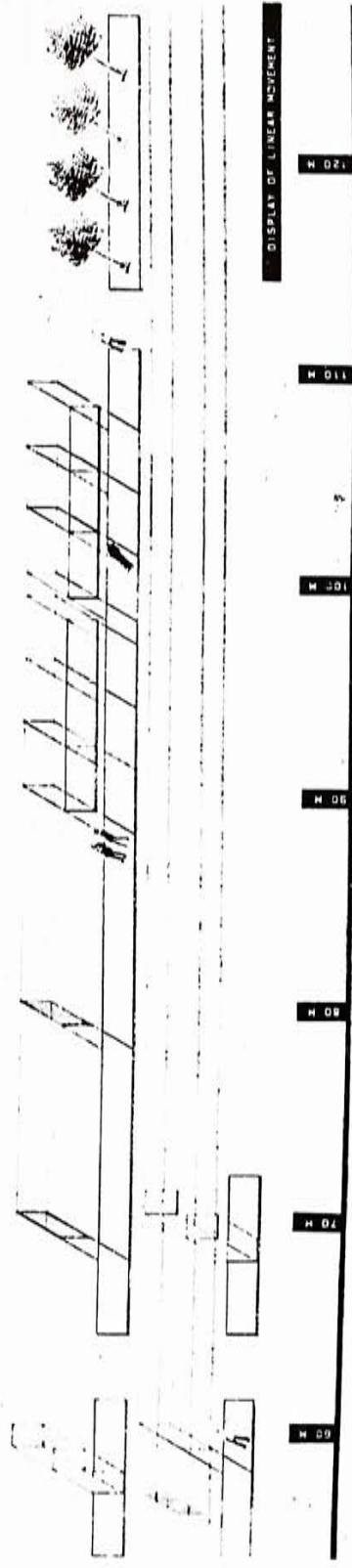
4



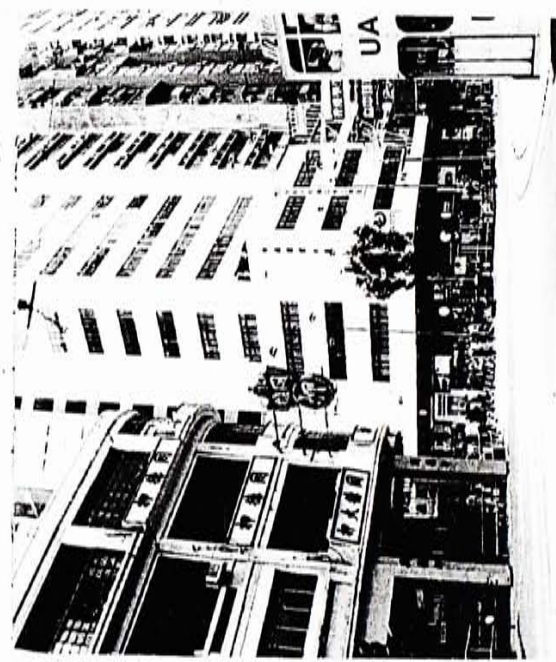
5. Plan of proposed future tram route and interchange plaza at Statue Square, Central.
6. Statue Square, Central.
7. Site at the fringe of Wanchai which is a possible future interchange point as well as a building to preserve.
8. Model of the urban strip in North Point.
9. Drawing of a typical urban strip between Nodes.



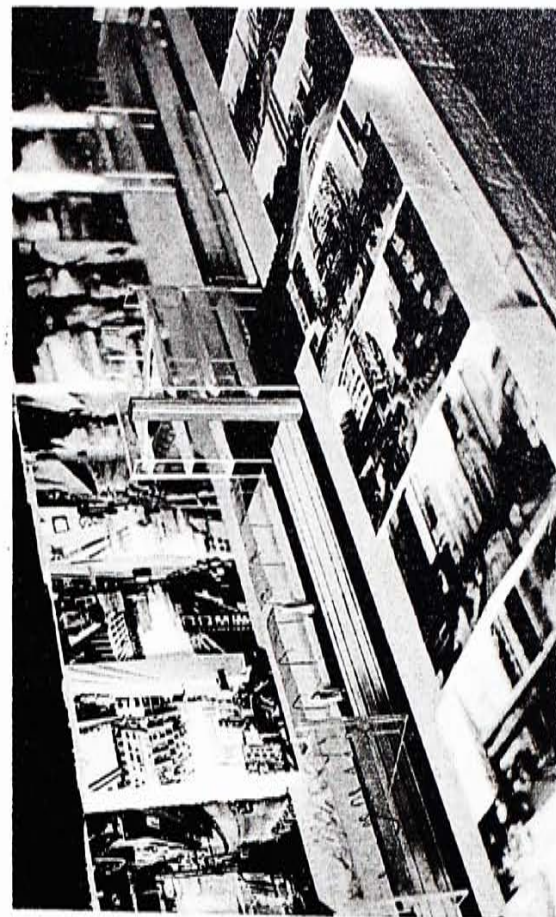
5



9.



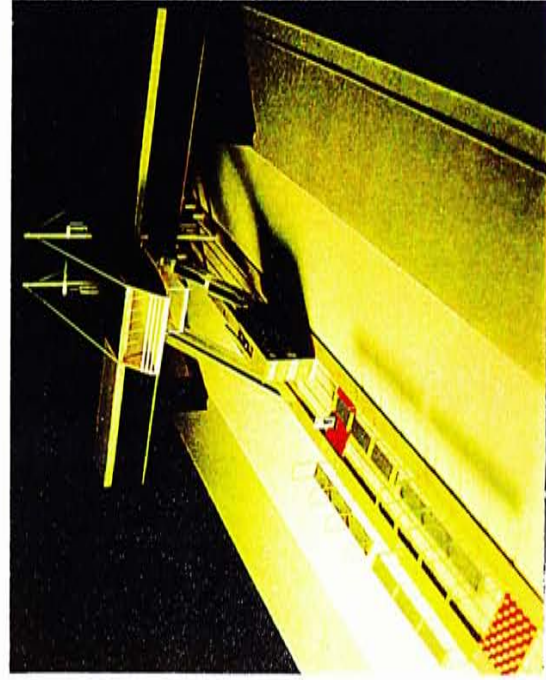
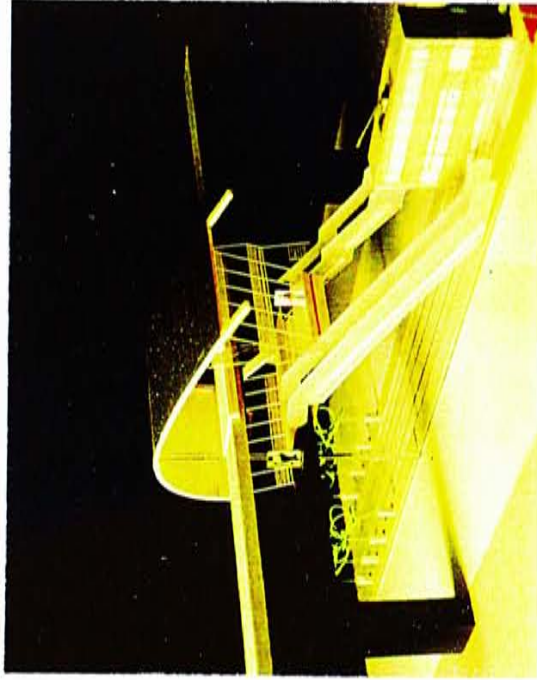
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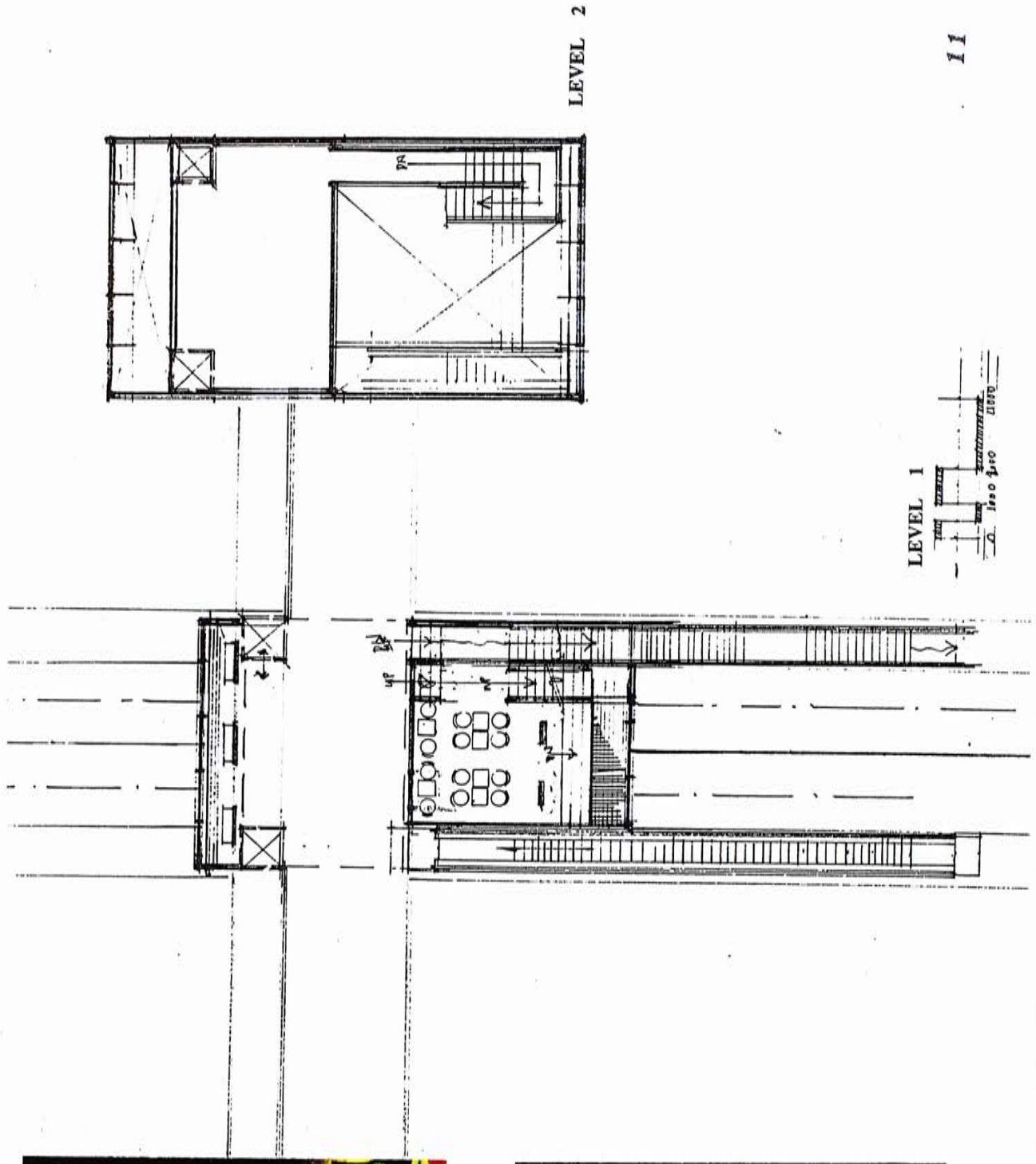
8



10. Options for Large scale-Nodes built on bridges across traffic routes.  
upper - An art gallery at Admiralty.  
lower - Observation deck and cafe at Quarry Bay.  
11. Typical plans of Nodes built on bridges



10



11

## 4.2. KENNEDY TOWN TERMINAL PLAZA AND TRAM MUSEUM



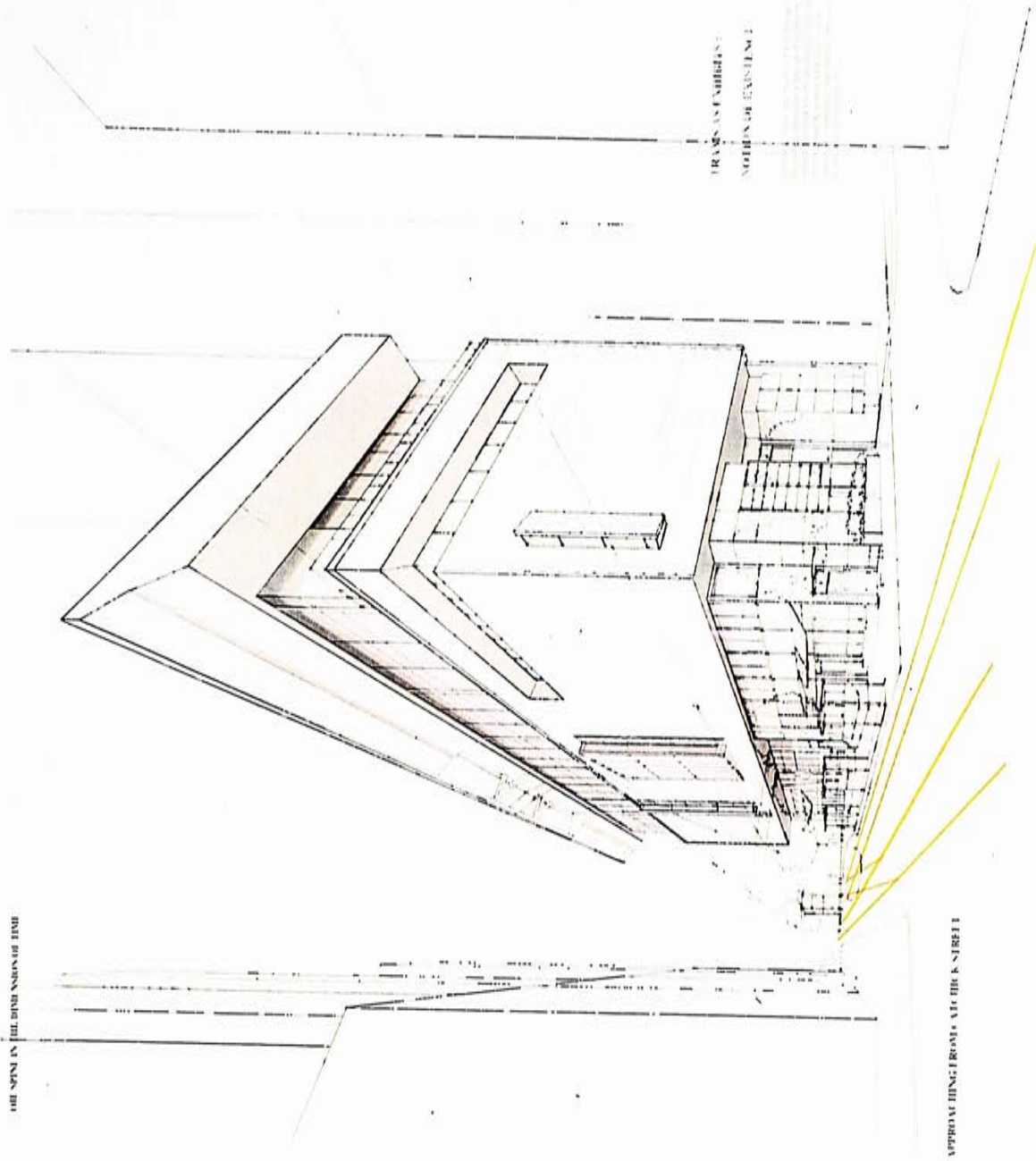
### 4.2.1. The Node

Arrival to the western terminal of the Tramway is the subject announced, the turning around of trams becomes an event to participate. Pass by, visit the museum shop, have a cup of traditional Hong Kong tea at the cafeteria; stay and watch, take a tram ride by all means.

above - existing view of site

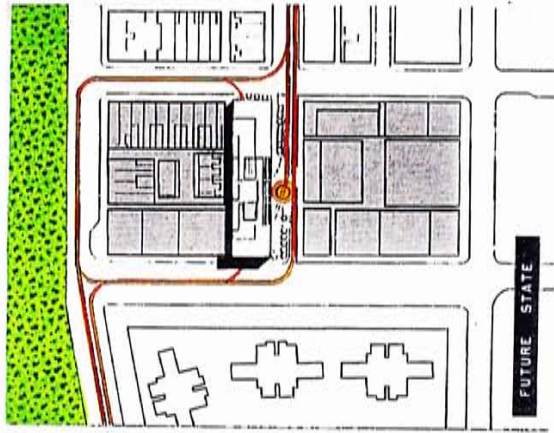
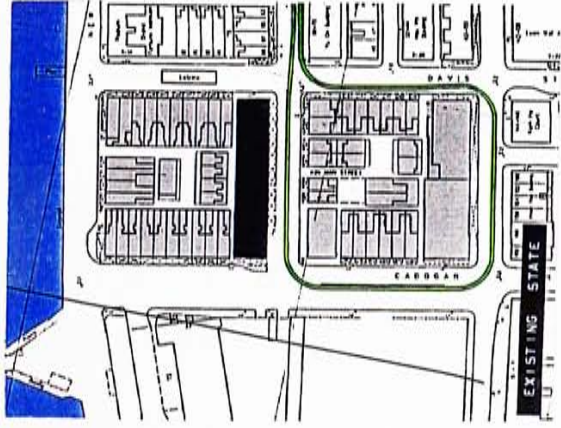
right - approaching the Node from Catchick Street

THE SPINE IN FULL DEVELOPMENT OF TIME

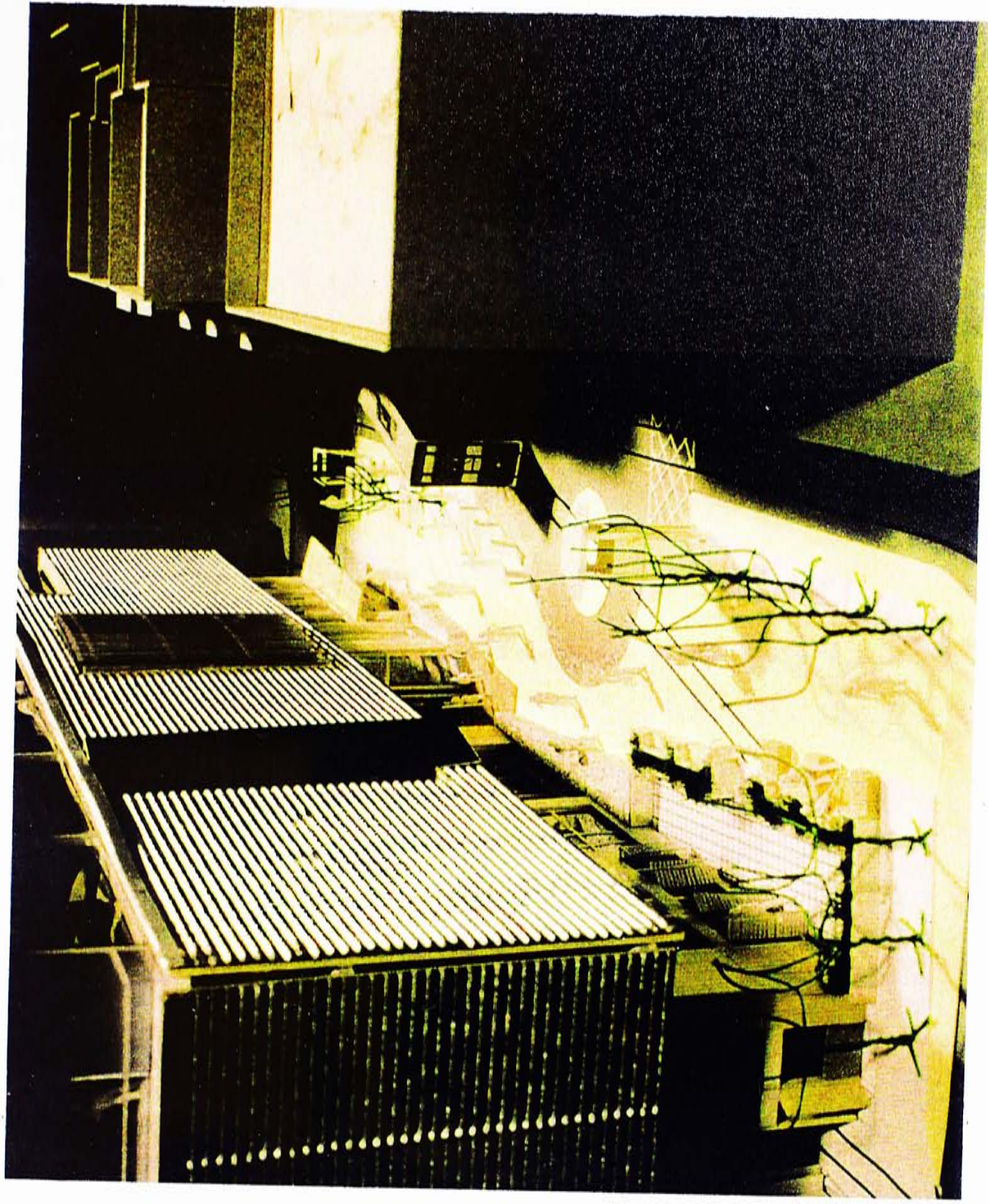


DWG FILE 4.3.1.





top - diagram showing existing state of site and context  
 above - proposed future state of the Node  
 right - The Plaza



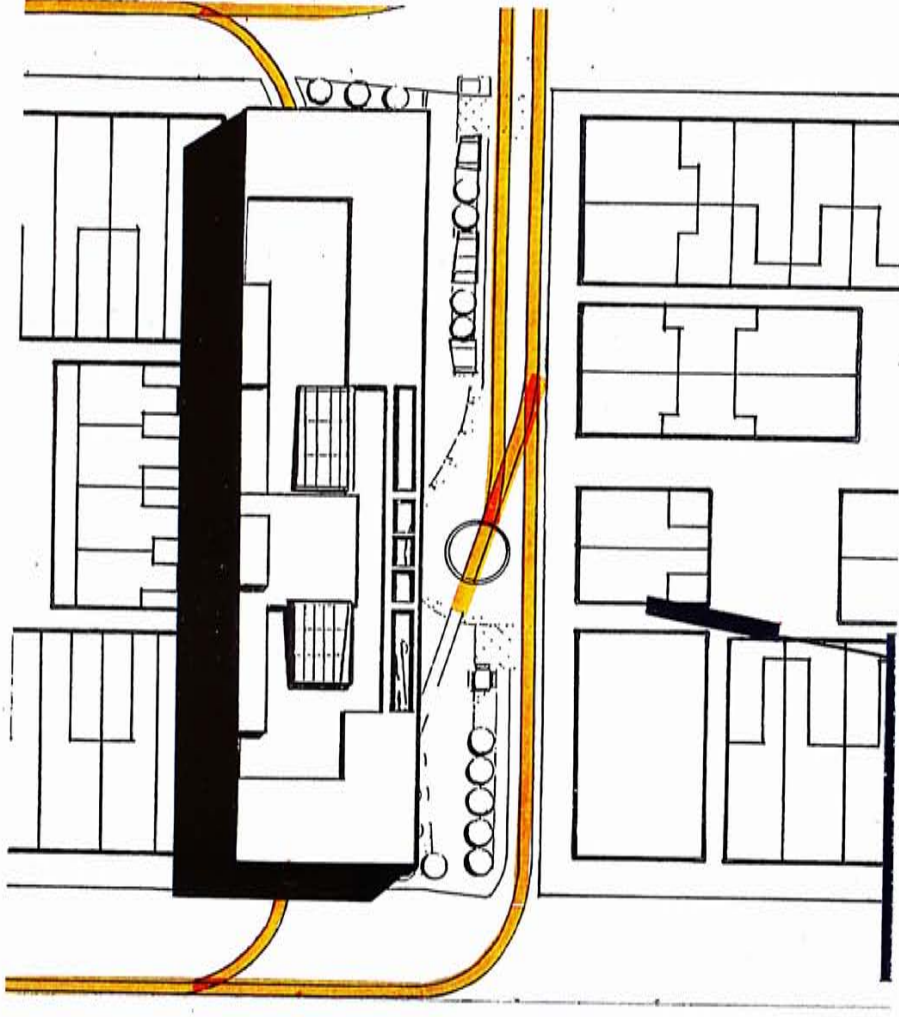
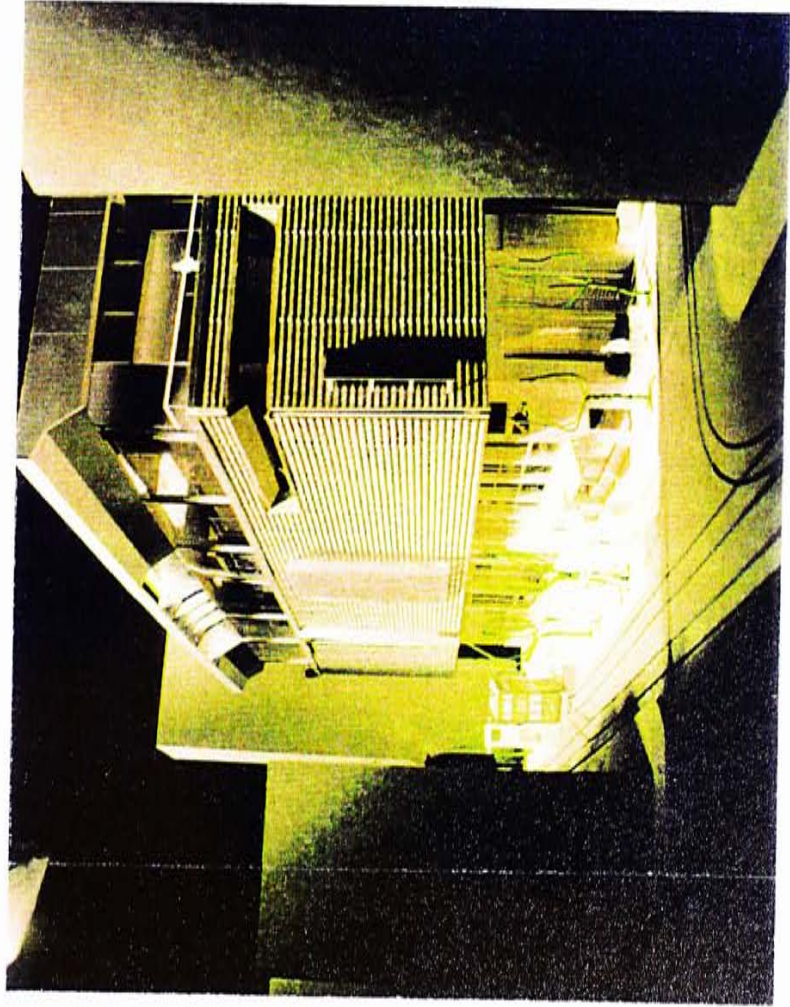


#### 4.2.2. The Museum

It is a house for trams, a re-interpretation as well as a neutral background. Yet trams are not the end, they are rather the means to tell the story of a city, a dynamic tie that picks up fragments of a unique urban life.

While existing ones are in constant motion on the street, passing by the building from 6 a.m. till midnight daily, trams of the past are re-fabricated, secured in place. Above them runs an abstract car that travels back and forth through the channel of time and place, escaping the question of authenticity. Let trams bring history alive.

below - view of the Museum from Catchick Street  
right - site plan

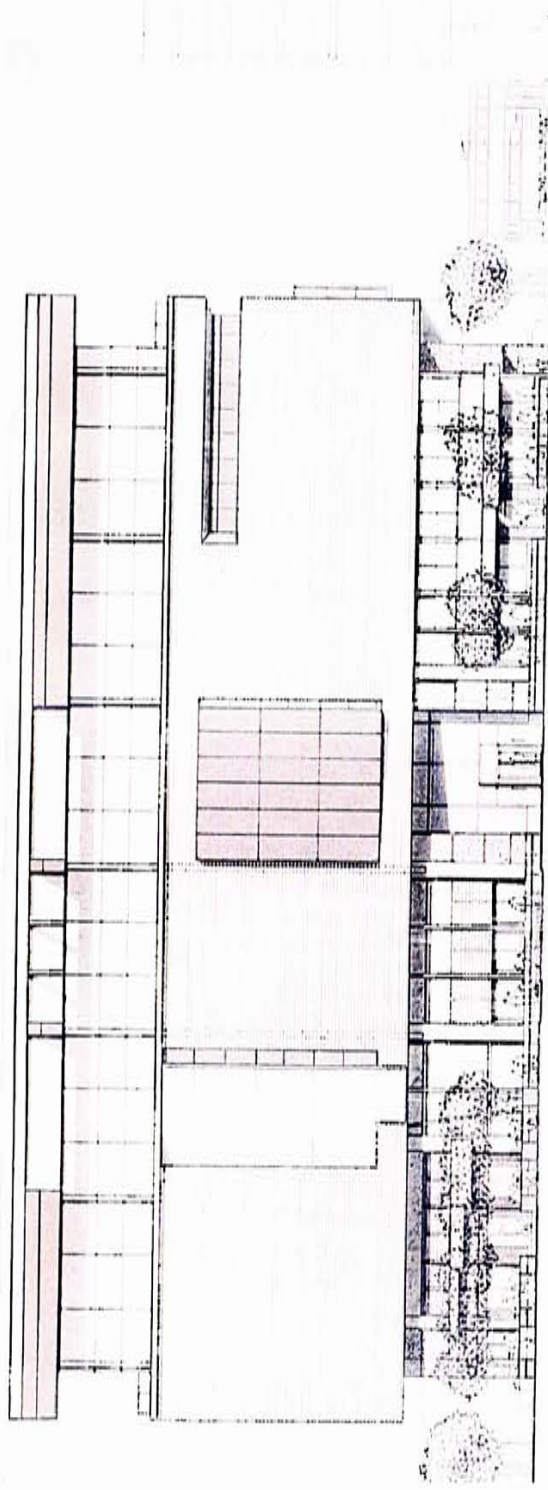




**Image**

To a certain extent it is a re-interpretation of the double decker. It is a simple structure covered with glass and light industrial materials. The street level lets trams run in and pass by, and takes part in the urban scene. The "lower deck" is enclosed, punctuated at places to draw and release tension. The "upper deck", like that of early cars, opens up, lets in daylight and allows view out. Yet it is quiet and calm. Instead of competing with the bustle of street life it would rather be a neutral background for the events in front, the colourful and dynamic images and displays within, and the rich messages there made visible.

right - building front facing Catchick Street



RIGHT ELEVATION

IMAGE: ANTI-UTLILY KARGH AND THE CORPUS REIT AND DYNAMIC IMAGE: AND  
REPLAY, AND THE IN THE ANCHORS THE REBROUGHT OF T

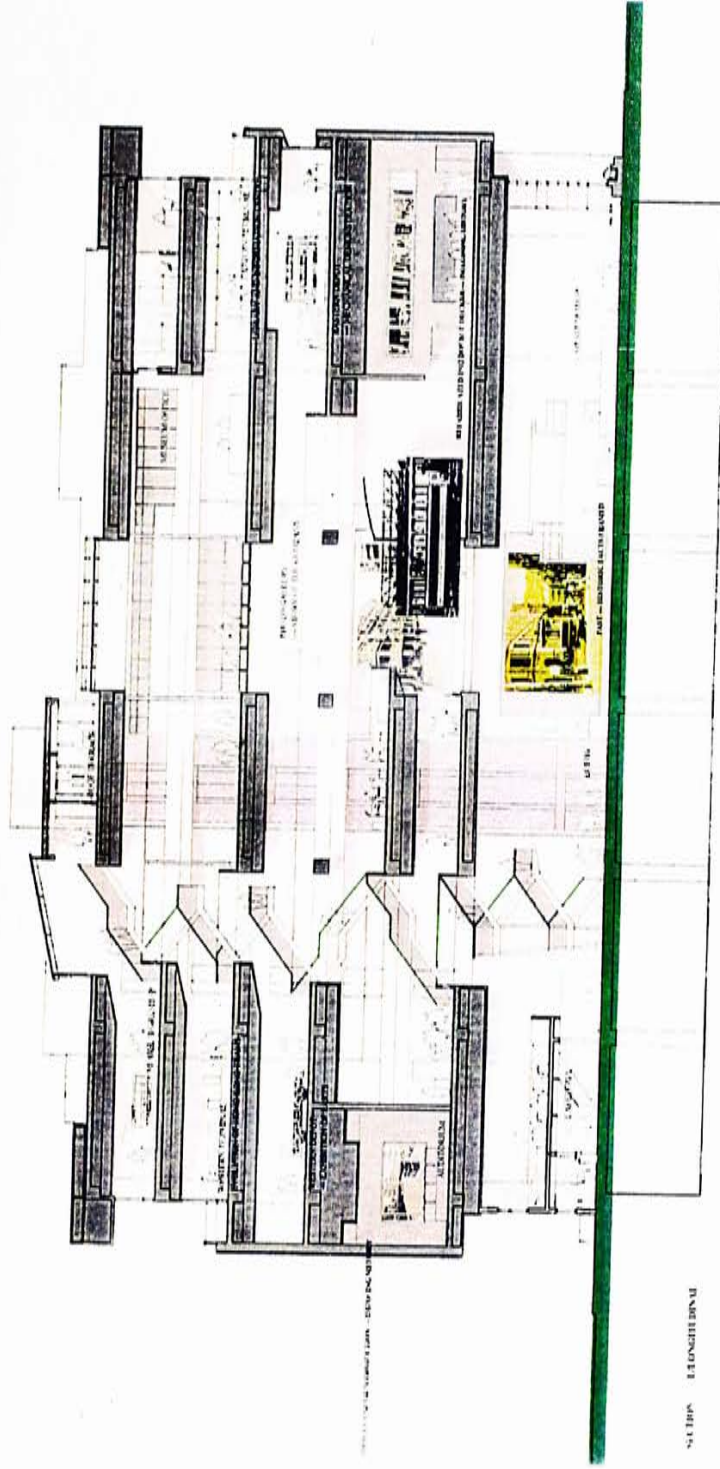
### Spatial articulation

In many ways the Museum reflects the organization of the tramcar - its close enough proportion, simple structure, attached skin, straight forward circulation pattern, and a flight of stairs so dominant one could not miss that anchors the varied decks and floor plates.

At street level transparency allows the lobby, shop and cafeteria blend interior space with the plaza. The re-fabricated antique car for rent participates in their commercial activities.

Exhibition spaces are arranged into two levels of spaces above, as if they were in a double decker. "A secured past" is housed in the lower deck below displays and acts that change over time in the upper deck. A dominating central space with floating decks at both ends becomes the common feature; a flight of stairs anchors all three levels. One withdraws to observe in the central space, and becomes more active in interacting with history in the smaller spaces at either end.

right - longitudinal section



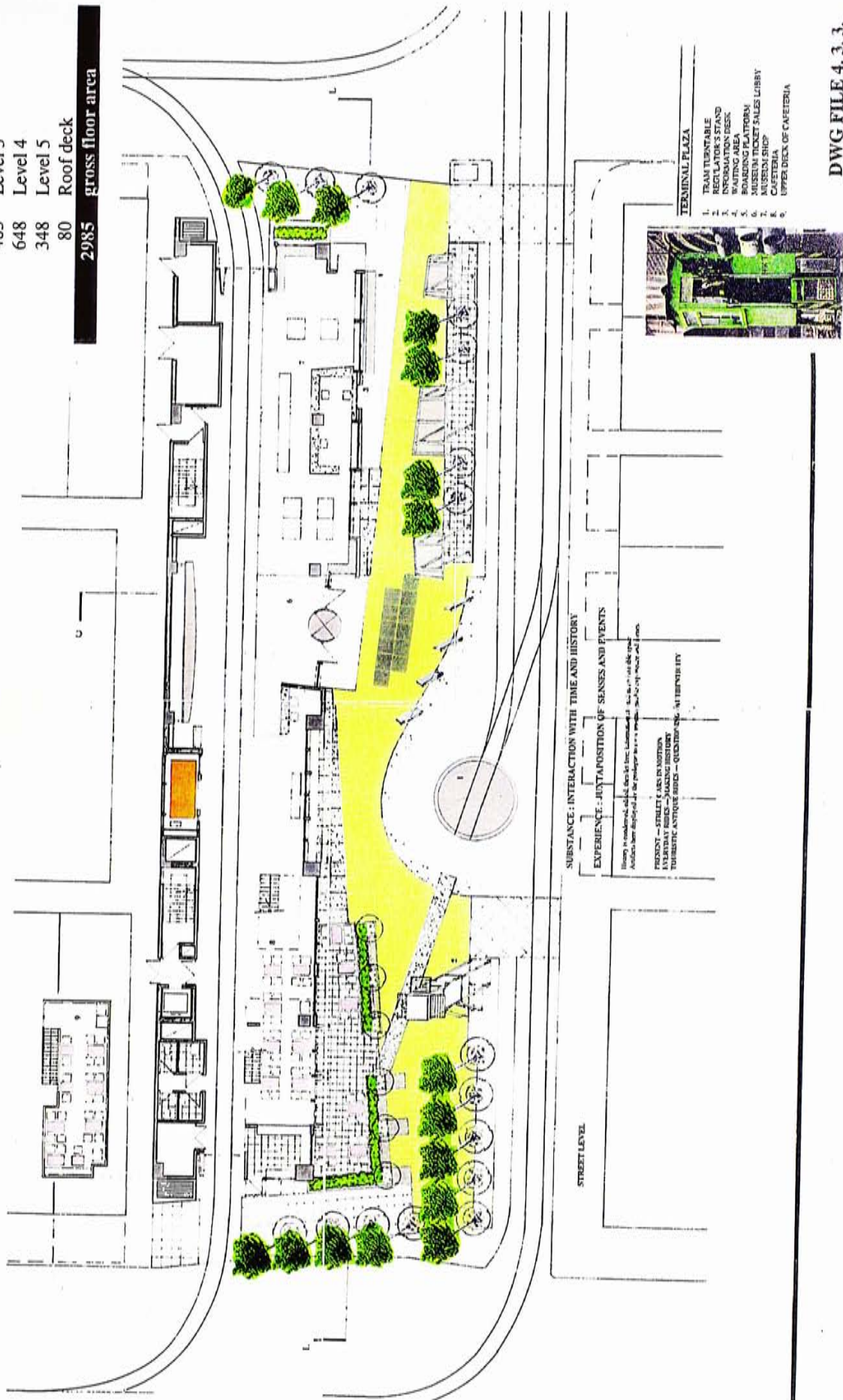
DWG FILE 4.3.8.



### 4. 2. 3. Schedule of Accommodation

#### Summary

sq.m	building level
560	Street level
44	Mezzanine
650	Level 1
170	Level 2
485	Level 3
648	Level 4
348	Level 5
80	Roof deck
2985	gross floor area



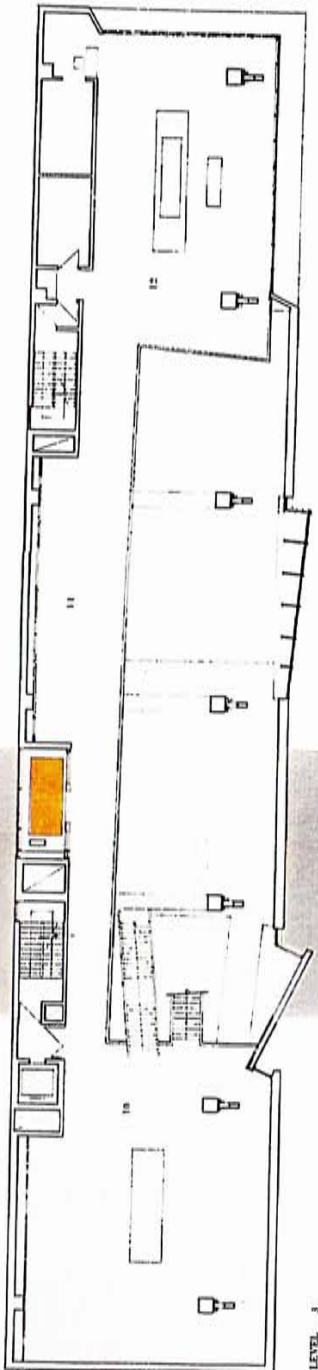
Street level	program
sq.m	180
180	lobby and reception
160	museum shop
63	cafe
50	cafe
8	storage
10	restrooms
2	janitor's closet
1.5	electrical closet
1.5	telephone closet
5.5	switch room
6	transformer room
23	mechanical services
510.5	total floor area

Mezzanine	program
sq.m	44
44	cafe
44	total floor area

DWG FILE 4. 3. 3.

### 3.3. Level 1

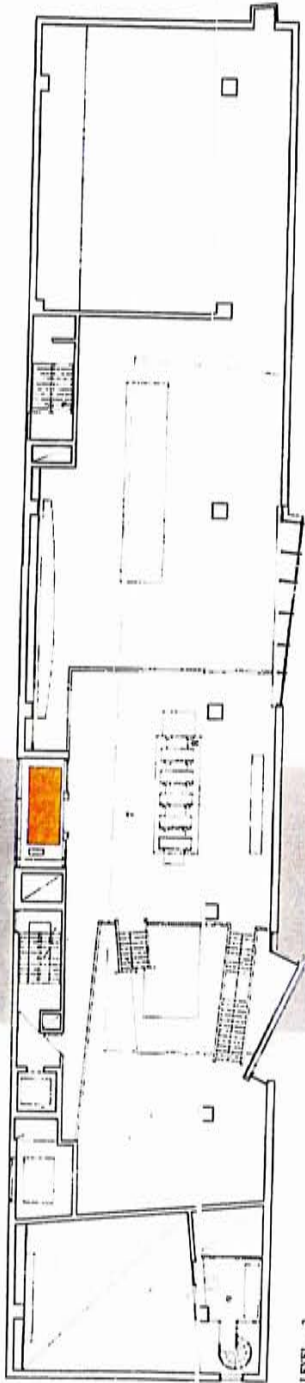
sq.m	program
40	auditorium lobby
77	auditorium
13	projection room and storage
270	gallery of the 1912 double decker
120	"drive-and-ride" simulation room
15	technical support room
10	restrooms
10	storage
<b>555</b>	<b>total floor area</b>



LEVEL 1

### 3.4. Level 2

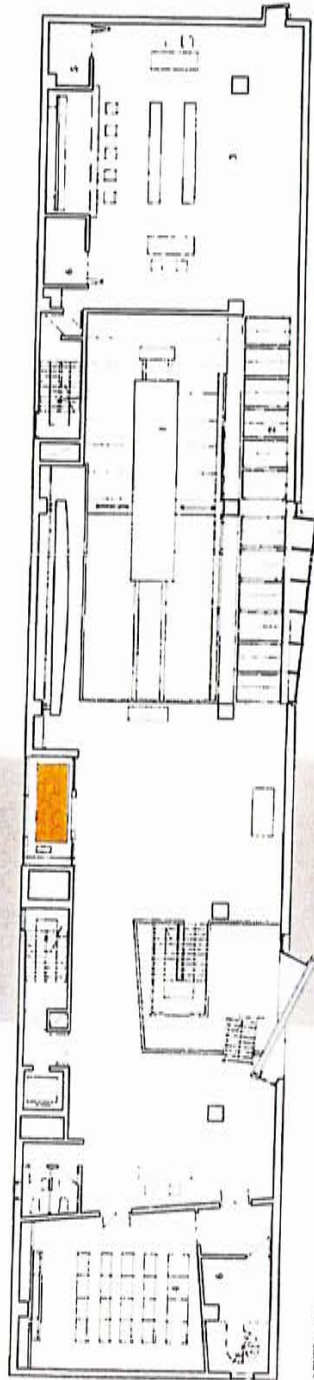
sq.m	program
120	viewing platform
10	machine room
<b>130</b>	<b>total floor area</b>



LEVEL 2

### 3.5. Level 3

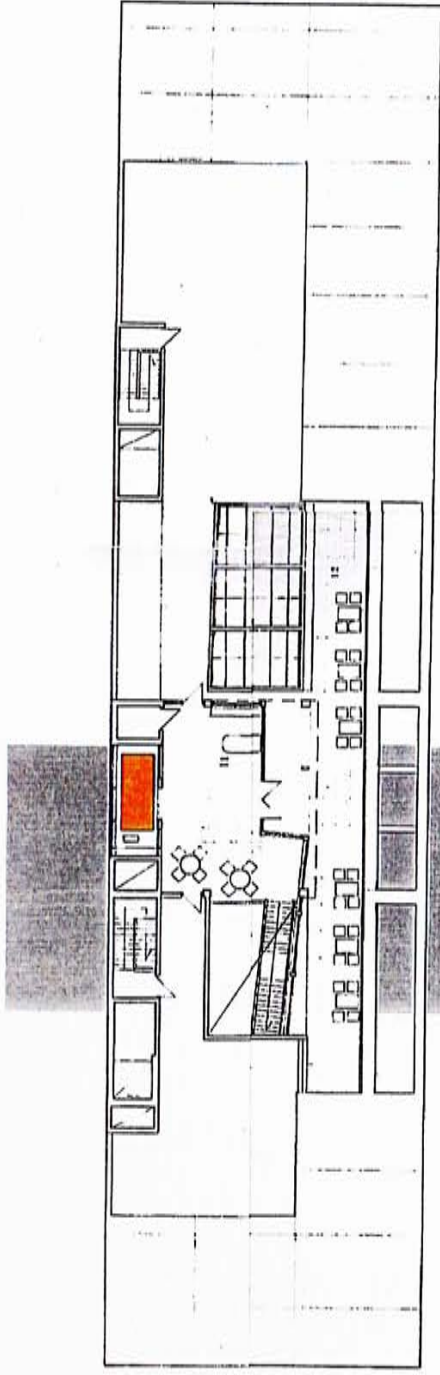
sq.m	program
150	gallery of tramcar components
110	gallery of tramcar operation
50	gallery of company history
12.5	technical support room
12.5	storage
7.5	security station
<b>342.5</b>	<b>total floor area</b>



LEVEL 3

- LOWER DECK**
1. THE FIRST DOUBLE DECKER
  2. GLASS VERANDAH
  3. DARK ROOM
  4. DRIVE-AND-RIDE SIMULATION
  5. AUDITORIUM
  6. TECHNICAL SUPPORT ROOM
  7. STORAGE
  8. INTERMEDIATE VIEWING DECK
  9. INFORMATION TERMINALS
  10. PROJECTION ROOM
  11. WESTERN DEPOT
  12. EXHIBITION OF PARTS
  13. PHOTO GALLERY
  14. STORY OF THE COMPANY
  15. DARK ROOM
  16. TECHNICAL DEMONSTRATION

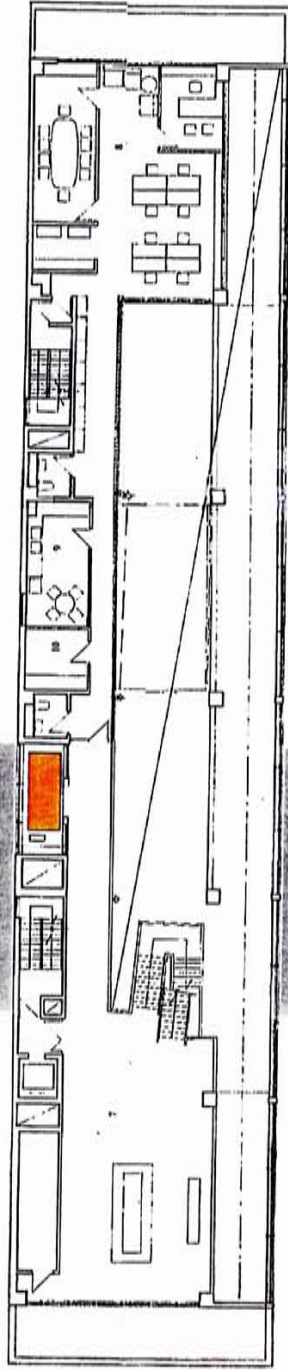




3.6. Level 4

sq.m	program
70	gallery of evolution of cars
140	gallery of development of the Spine
140	viewing channel for the moving car
90	library and information centre
12	technical support room
36	restrooms
3	janitor's closet
491	total floor area

ROOF DECK



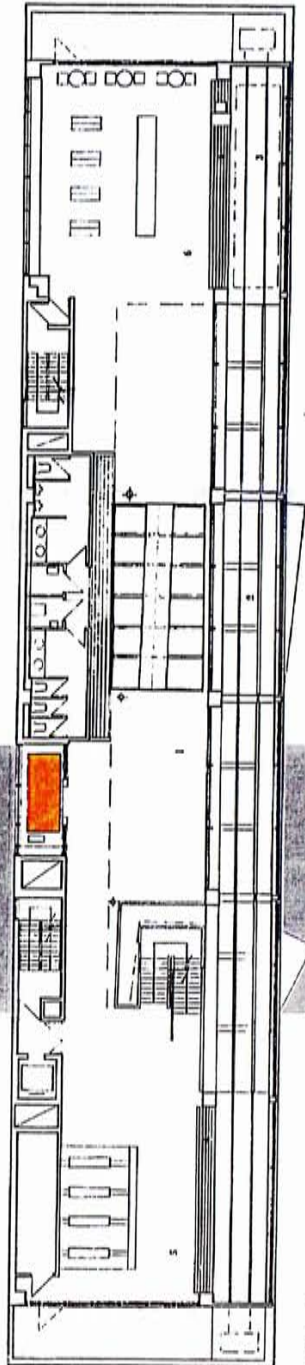
LEVEL 5

3.7. Level 5

sq.m	program
70	"international tram stories" model workshop
12	technical support room
70	museum office
20	conference room
17	pantry
8	staff's restrooms
9	storage
136	total floor area

3.8. Roof deck

sq.m	program
54	small snack bar
65	roof terrace (outdoors sitting area)
3	storage
10	domestic water tanks
10	a.c. chillers
142	total floor area

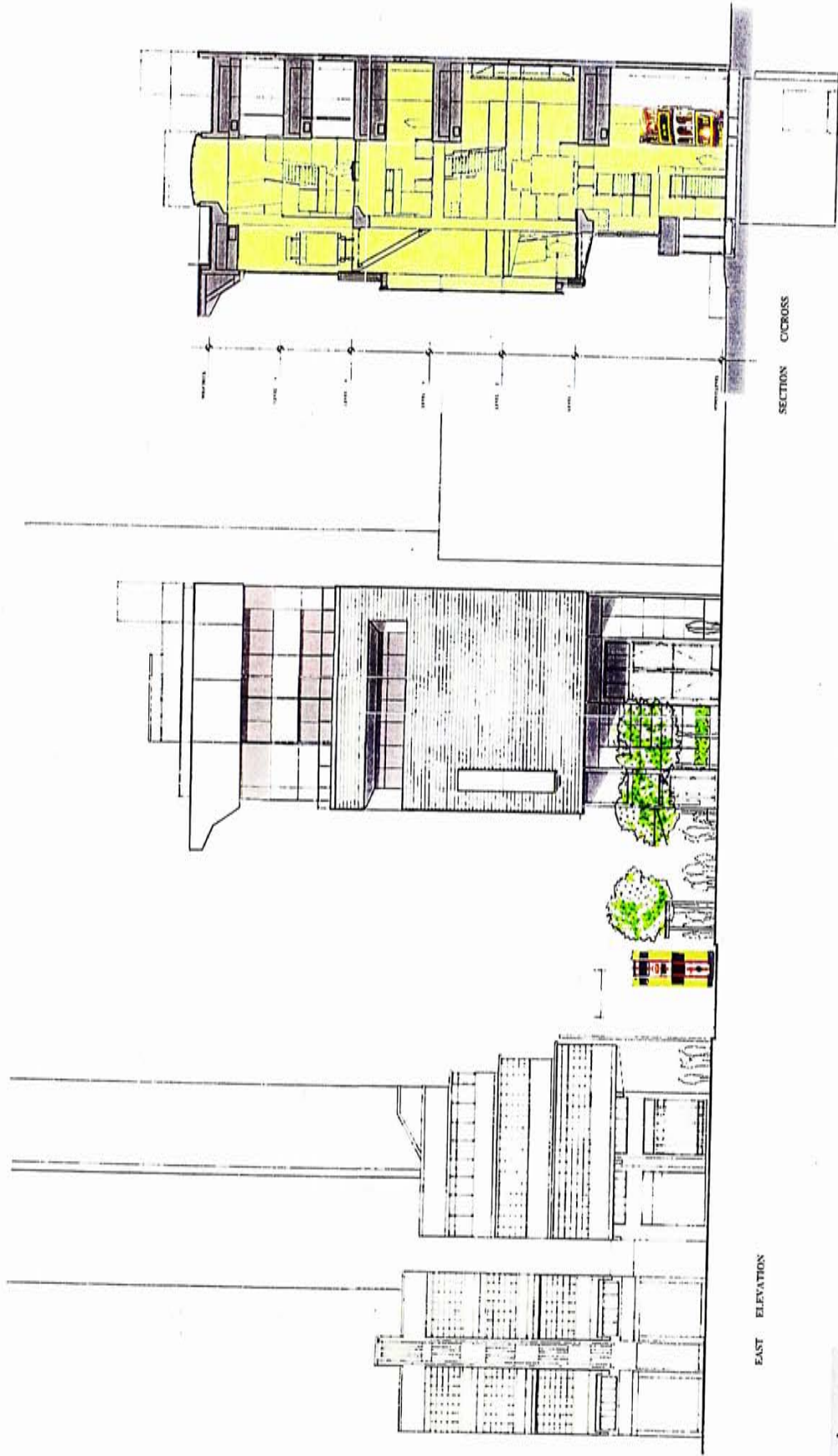


LEVEL 4

- UPPER DECK
1. SPINE GALLERY
  2. CHANNEL OF MOBILITY
  3. CHANNEL OF TIME AND EVENTS
  4. BOARDING VIEWING CAR
  5. BOARDING VIEWING PLATFORM
  6. BOARDING VIEWING PLATFORM
  7. BOARDING VIEWING PLATFORM
  8. BOARDING VIEWING PLATFORM
  9. BOARDING VIEWING PLATFORM
  10. BOARDING VIEWING PLATFORM
  11. BOARDING VIEWING PLATFORM
  12. BOARDING VIEWING PLATFORM

3.9. Basement

sq.m	program
50	storage
9	domestic pump room
9	fire-services pump room
20	air handling unit
88	total floor area

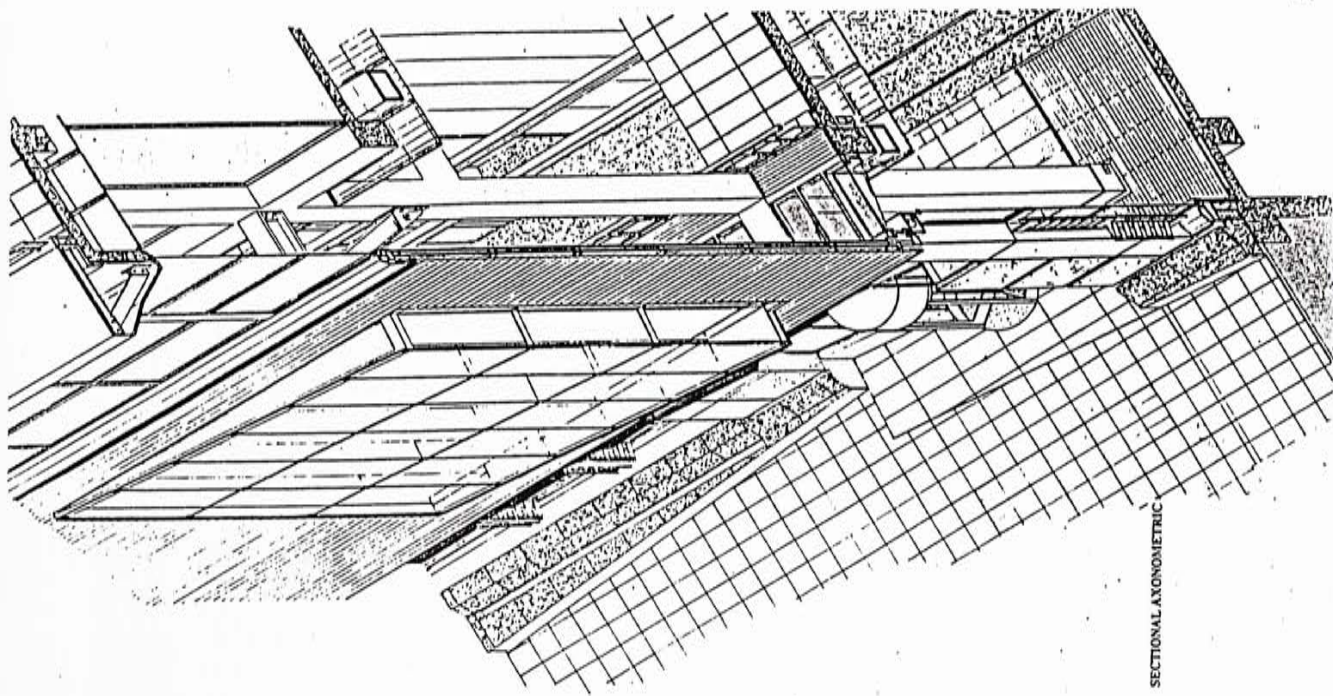


above - the east elevation and cross section show again the relation between building and trams in terms of position as well as proportion; the roof form responses to the 3 sided - site.

DWG FILE 4.3.7.

DWG FILE 4.3.9.

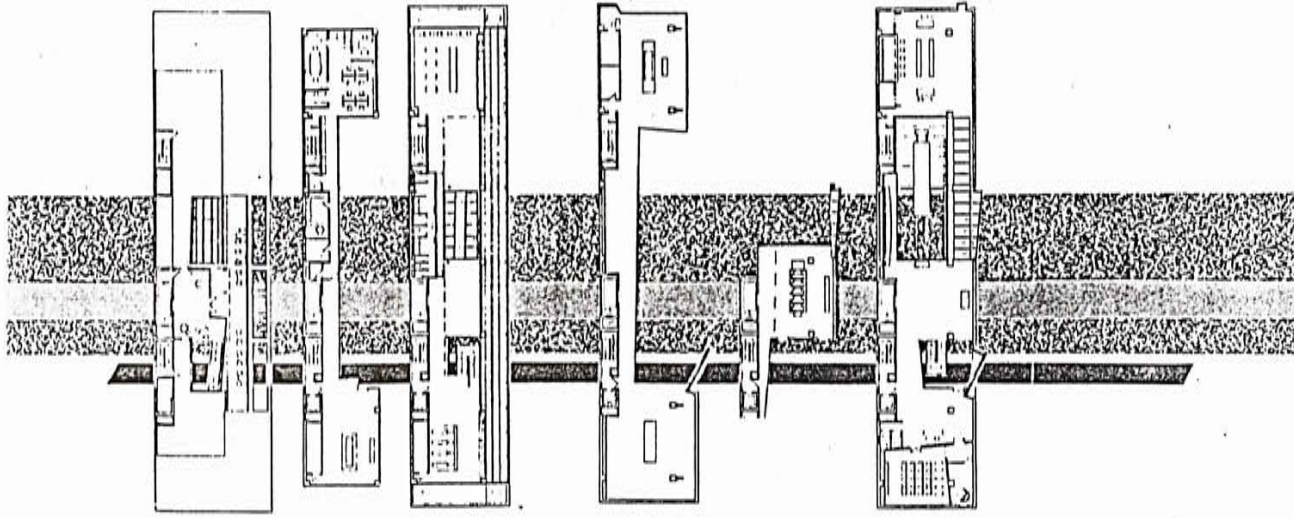




SECTIONAL AXONOMETRIC

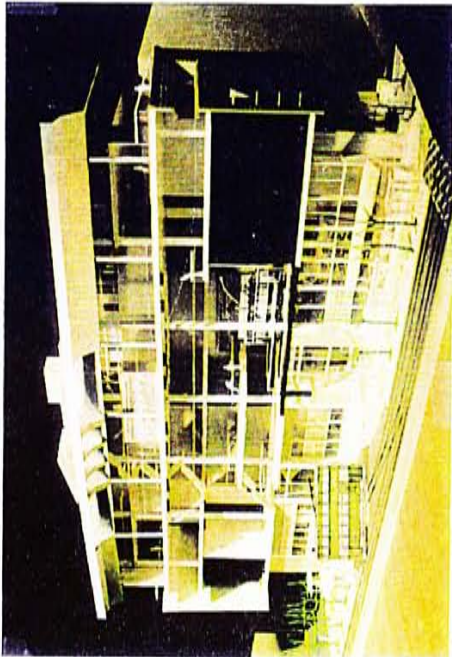
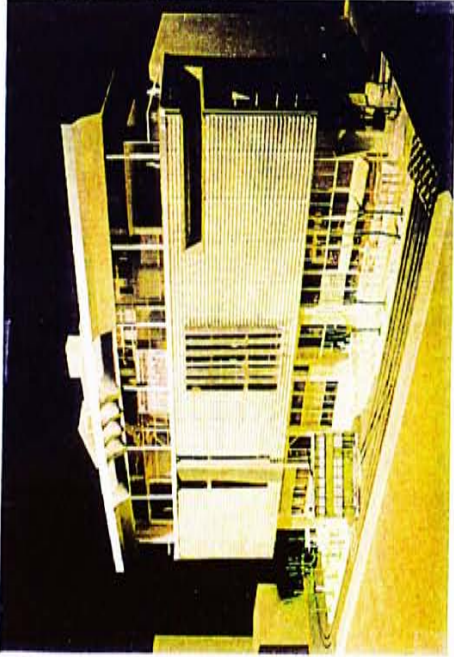
above - sectional axonometric  
right - diagram showing organization of building

DWG FILE 4.3.10.

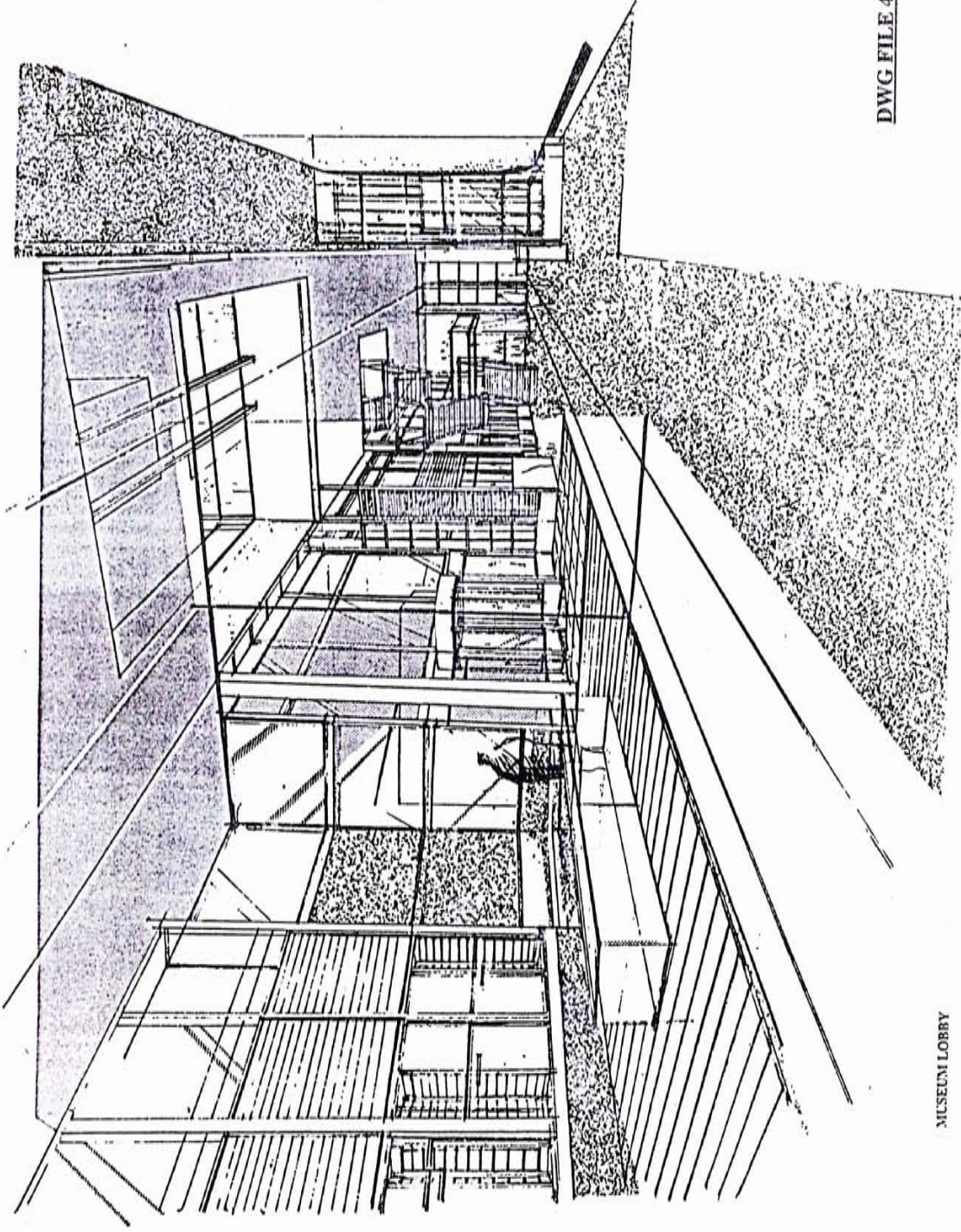


DWG FILE 4.3.13.





above - relating the exterior and interior  
right - sketch of the museum lobby

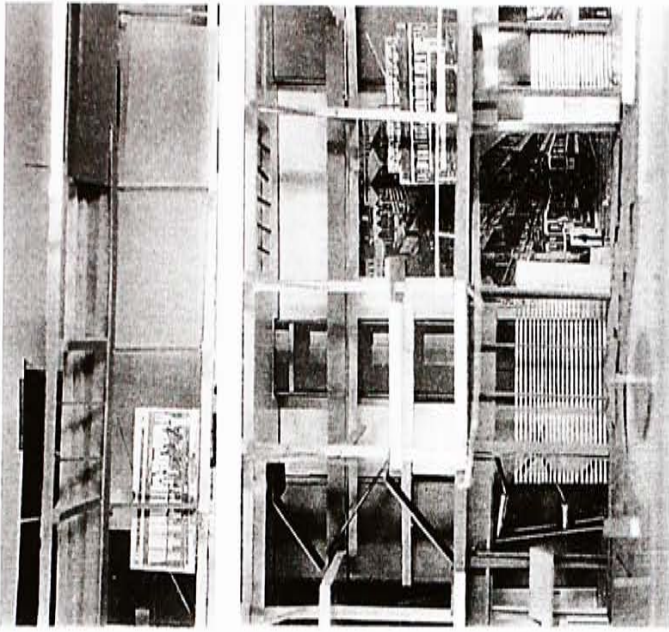


MUSEUM LOBBY

DWG FILE 4.3.11.

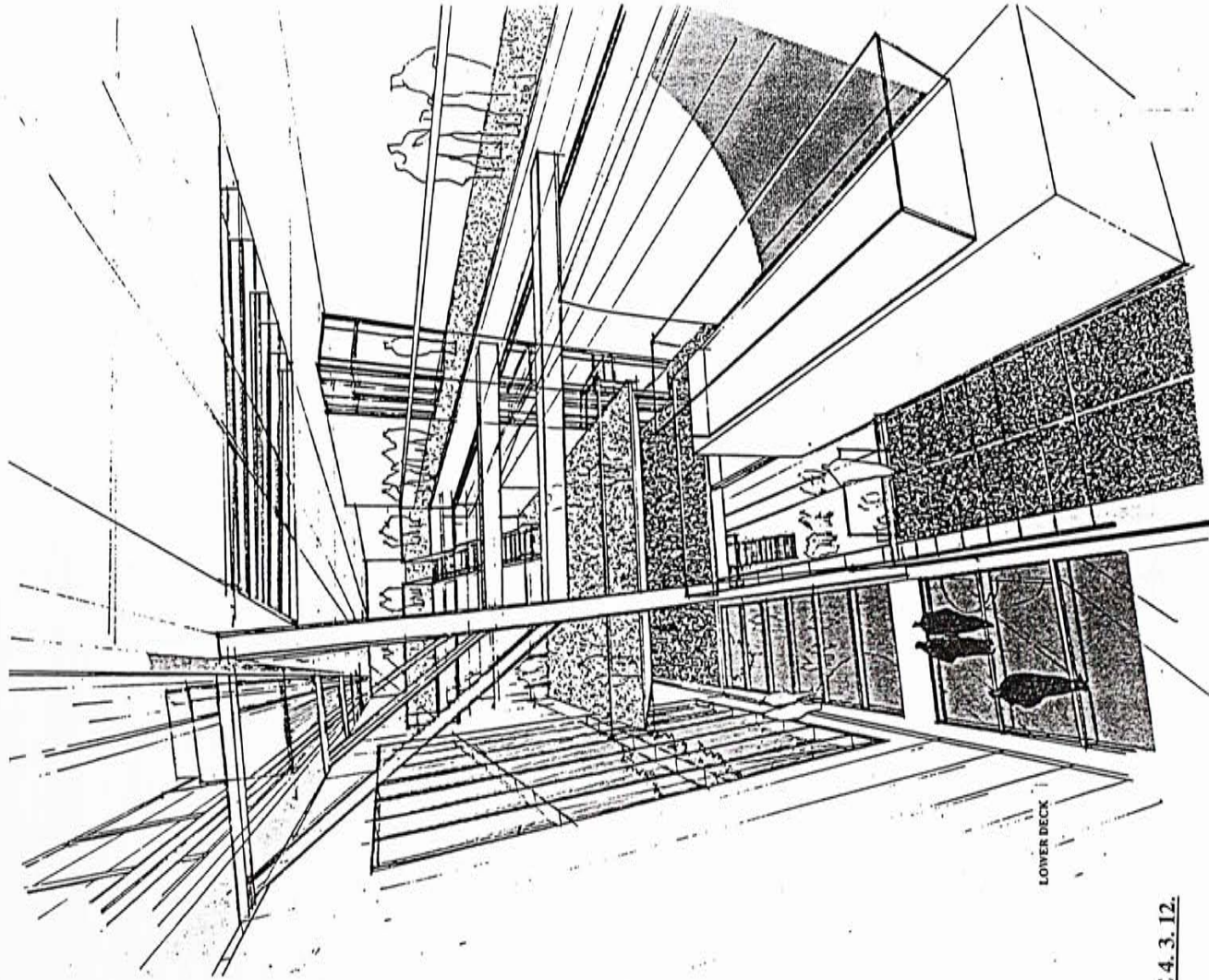


study model



#### 4. 3. LIST OF DRAWING FILES

4. 3. 1. PERSPECTIVE - view from Catchick Street	22
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4. 3. 12. INTERIOR PERSPECTIVE - LOWER DECK	33
4. 3. 13. BUILDING DIAGRAM	31



DWG FILE 4. 3. 12.

above - gallery of the 1912 double decker at the  
Lower Deck of the museum



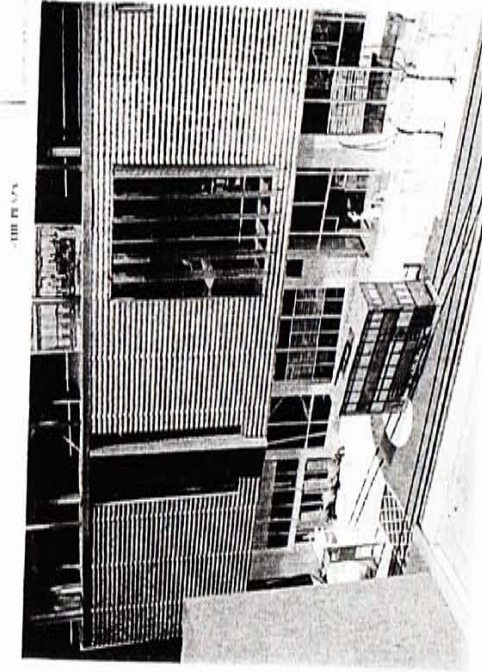
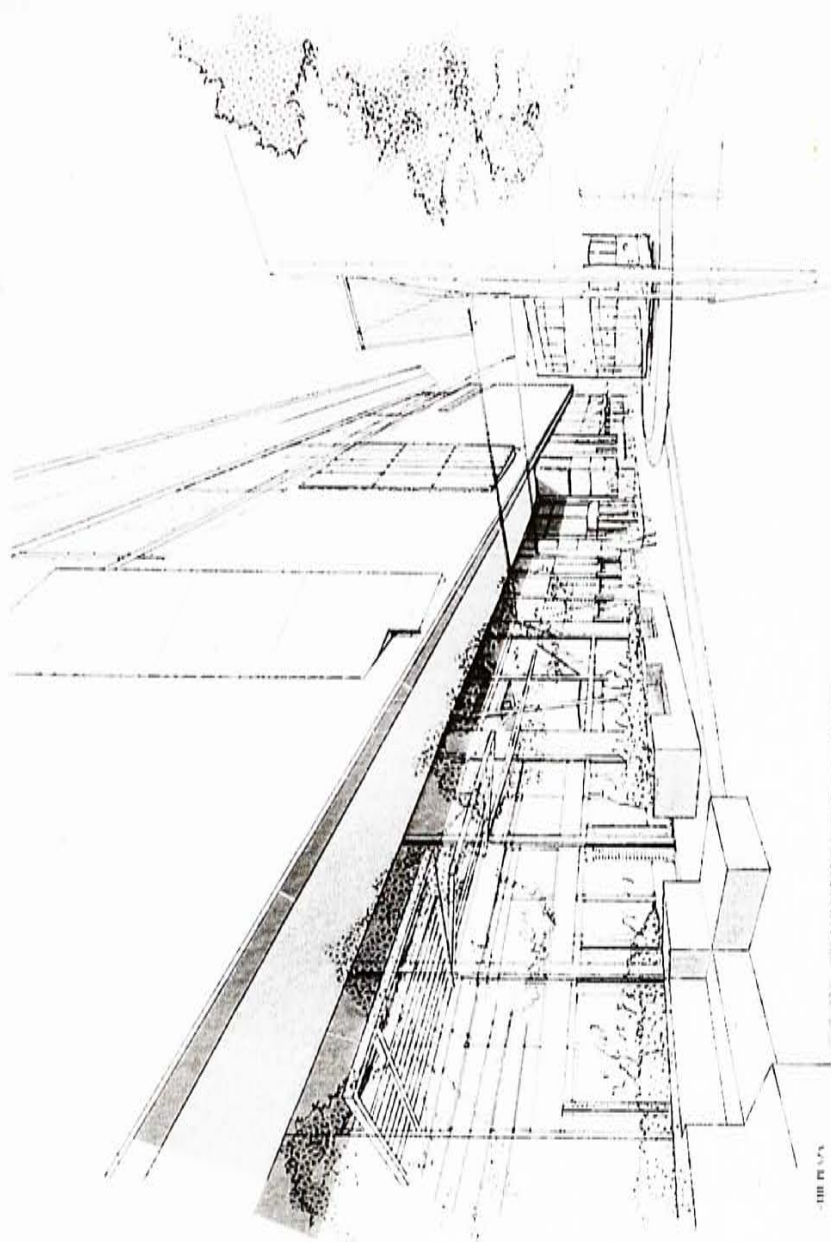
## 5. CONCLUSION

The Spine is almost an "existing vision". It was shaped by historic development of Victoria, then Hong Kong, and has been dominant in the growth of the city's form. Urban centres spread themselves along the tramway, social changes such as the advancement of transportation systems occur accordingly. The past, present and future stories of Hong Kong could be picked up and pulled together along the Spine and we should not let such significance loosen and fade away.

Nodes announce their presence to us upon our arrival, and project their significance to integrate with ordinary daily life. Interventions that trams bring alive are first time-events for some, occasions for others, and part of life for most of the rest.

As the head of the Spine it is important for the project in Kennedy Town to demonstrate the pleasure a place could contribute to the city and the delight that trams could introduce into the urban scene. It has not been a long and profound study and has ample room for further development. Yet the message is simple - have fun, take a ride !

The Tramway should not be just an old, congested and monotonous channel and nothing more. It is time the city exposed it as a distinctive appeal and not let urban growth bury it further and further into history. Hopefully, the tram terminal in Kennedy Town would initiate a continuous flow of design ideas for buildings at other nodes, and bring about a total re-interpretation of Hong Kong Tramway, the Spine.



DWG FILE 4.3.2.

above - The Plaza, view from western end



## APPENDICES

HONG KONG TRAMWAY

## THE SPINE

REINTERPRET THE CHANNEL OF MOBILITY

### SPINE

[s pain ] *n.* : 1. backbone

2. supporting part of a book's cover  
which is visible when it is in a row on a shelf

<*The Oxford Dictionary*>

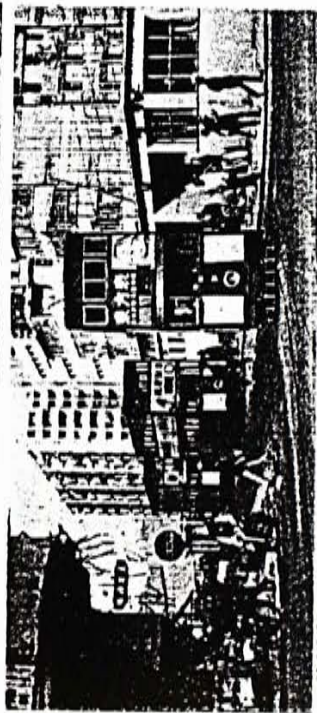
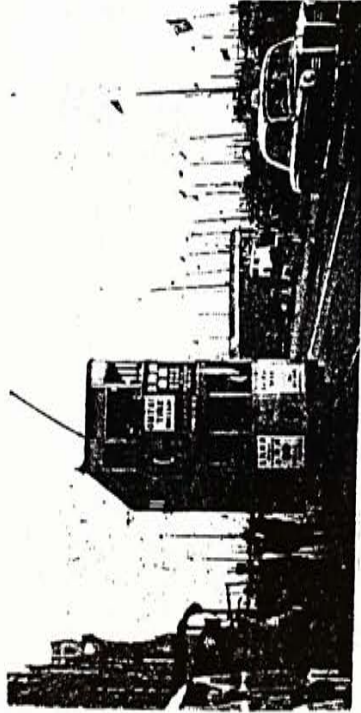
3. A living connective framework

across the city for pieces of mobile urban fabrics  
and their functions to cling and refer to,

so as to make a strong sense of place  
despite of the constantly changing context and time

<*The Spine*>.





#### Special element

Trams - the most intriguing railway transport, a 3-dimensional cinema in motion, and a witness who has come all the way with the city from 1904 to the present day. They would go through, link up and make visible various fabrics and events, revealing the unique spatial as well as social form of the city.

#### STATEMENT :

Expose the long-hidden Spine of Hong Kong, the Tramway, and make it a delightful channel of mobility which connects fragments between urban centres of the Island.

#### OBJECTIVES :

Make the Tramway a remarkable feature of Hong Kong by enhancing qualities of its components. Project its significance beyond the past by bridging gaps between the channel and the people, the city and its future form.

#### SUPPORTING ACTIONS:

##### 1. Structure the channel. [Fragments and Nodes]

Reinterpret and enhance the traditional structure of Hong Kong Tramway so that it contributes to the city's image as a framework of additive fragments and nodes.

##### 2. Make places. [Nodes]

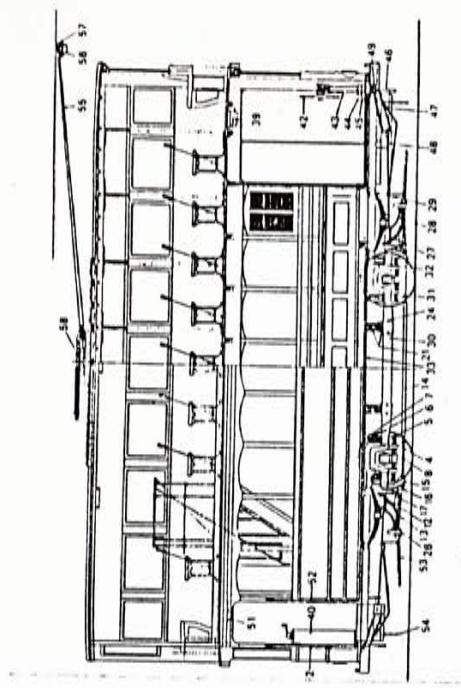
Transform focal areas of urban centres to human orientated places so that their social and spatial role continues with enhanced sense of place and amplified good qualities.

##### 3. Improve the channel-scape. [Between Nodes]

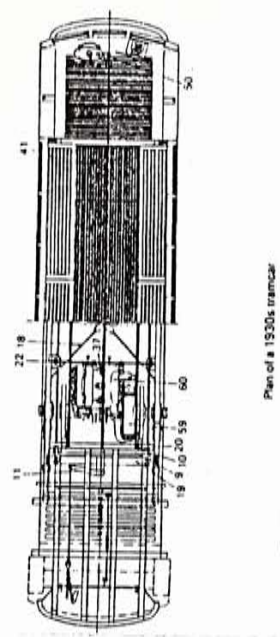
Treat the fragments between nodes so that they add up to form a physically and environmentally pleasant whole.

##### 4. Vitalize lost spaces. [Beyond Nodes]

Utilize forgotten opportunities so that they contribute to the richness of the Spine as well as to the city.



**HYPOTHESIS :**  
This thesis will show that a framework which connects urban centres as distinctive Nodes enhanced with pleasant environments can collect and strengthen a fragmented channel of mobility to become a remarkable Spine of a city.



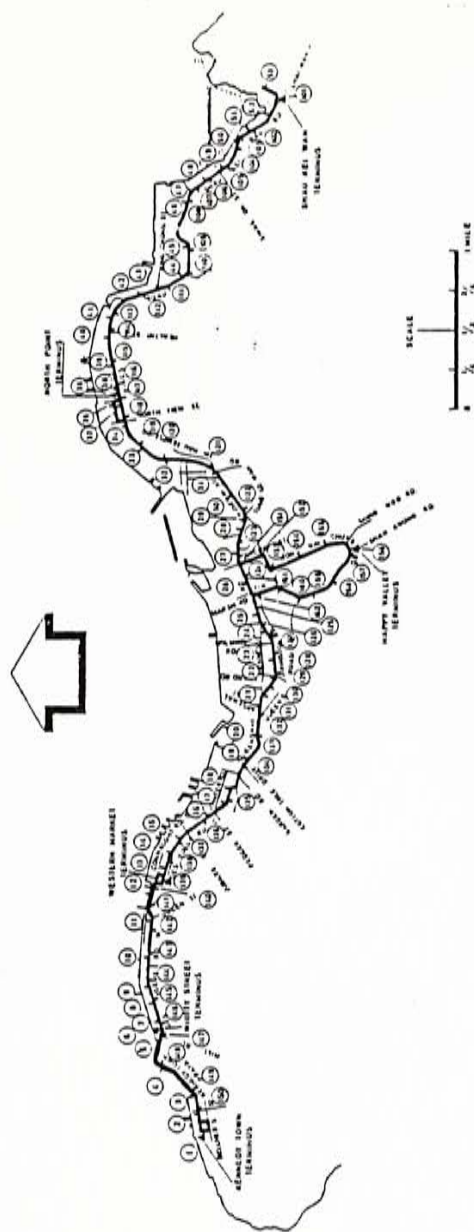
Plan of a 1930s tramcar

**ABOUT MOBILITY**

Places are stagnant by themselves for they have no life but that of people who come, consume resources, and in turn introduce life and mobility. The same applies to a Spine, which is a line of connected fragments and places. It is at one level a structure to hold and relate to, and at another level a channel that accommodates the movement of numerous cells. People are spinal fluid which performs functions, connects places and events, transfer objects, translate their relationships to messages. Such activities support a flow of liveliness with high continuity across the Spine, from a place to another. They turn the channel into a framework of mobility and show the connection between living places and the Spine - the dynamics, the displacement of act.

Hong Kong is about the juxtaposition of chaos and vitality, the mobility of people and the urban scene. It is dense but fragmented in so many ways the city becomes accessible only for people who know it. However, nothing is wrong with fragmentation if some underlying principles tie the pieces to form a whole. Mobility is one of them. The theory is that getting from one place to another makes both more understandable if one realizes their differences, and more coherent if a certain form of continuity is detected. The sense of being in successive places present continuity in a fragmented sense, which is the essence of the whole.





## THE TRAMWAY

While the wholesome harbour and continuous hills make a strong image, the authentic, ordinary living Hong Kong lies between them. The Tramway is parallel to the distribution of such living places both physically and historically. It moves through, connects and introduces continuity between them like a piece of thread. Rather unfortunately, however, one cannot deny the general impression of it as a long and congested road. On one hand it has not displayed its full potential as a strong feature of Hong Kong, a remarkable channel of mobility. On the other hand, while running with a romantic sense of nostalgia to the past, it should nevertheless connect people to the future.

Should it not respond to these requests the Tramway would only deteriorate and one day lose its significance forever.

To make a stronger whole, Nodes that are identified as anchors of fragments must speak for themselves enhancing the living patterns of people and activating forgotten opportunities. Interconnected, they are to form a dynamic framework of distinctive fragments, reflected exactly by how trams are used for short trips, from point to point. Trams have always been fascinating for being close to human and open to air. Their appeal is the essence of the Tramway, the quality that provoked my vision and convinced me that by strengthening the Tramway, a fragment, we are working towards a strong image for the city as a whole.

## SCOPE OF ISSUES

The scope of this design thesis is structured into three areas of interest, each generated and developed from a different point of view but come together as a coherent set of fragments under the same Spine.

### 1. The Tramway - A line of Nodes

Reinterpret structure of the channel by designating Nodes and identifying fragments.

### 2. Urban centres - Fragments and Nodes

Enhance the sense of place of nodes so as to make them distinguishable from each other.  
Improve streetscapes to make a pedestrian-friendly environment. Make connections to lost spaces to activate forgotten opportunities.

### 3. The Tram system - Intervention of elements

Make interventions in the city with the Tram system, which includes tramlinks, tramstops and the trams.

**Site**  
The Tramway of Hong Kong which covers the tramlines' main route from Kennedy Town to Shau Kei Wan and the Happy Valley loop.

**Client**  
The Hong Kong Tramway Company  
Town Planning Board and Design Division, District Planning Branch, Planning Department

## Performance requirements

In exploring the outcome of the vision it is found that the three study areas fall into an integration of design ideas across the scale rule. Fragments and elements, which are interventions in the city made visible and comprehensible by everyday street users, add up to enhance the performance of nodes, which in turn are

While the essential design objectives of the Spine are in terms of the line of Nodes, its performance requirements are expressed in Nodes and supported with design concepts within Nodes.



Design Issue 1

STRENGTHEN THE  
LEGIBILITY OF THE  
WHOLE BY ENHANCING  
THE SENSE OF PLACE OF  
SUCCESSIVE NODES.

FRAGMENTS AND NODES

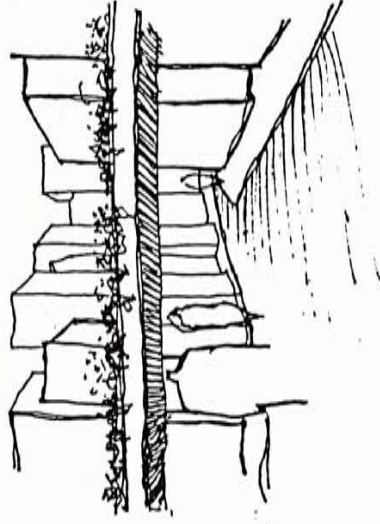
Performance

Requirement 1.1  
THE ARRIVAL TO A NODE, BY ANY  
MEANS, SHOULD BE NOTICEABLE.

INTERVENTION OF ELEMENTS

Concept ideas

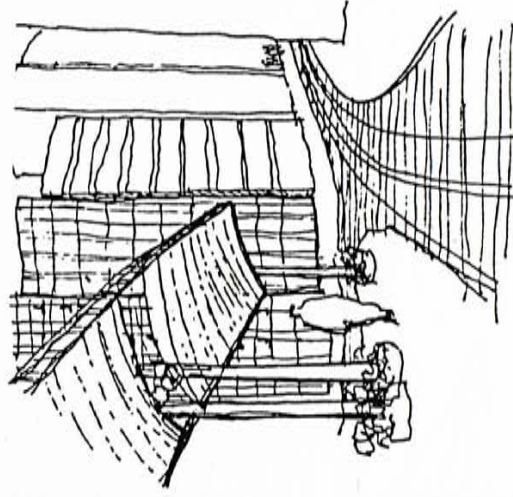
Define Edges :



*by boundaries*

*with a stop*

Define node within a Node :



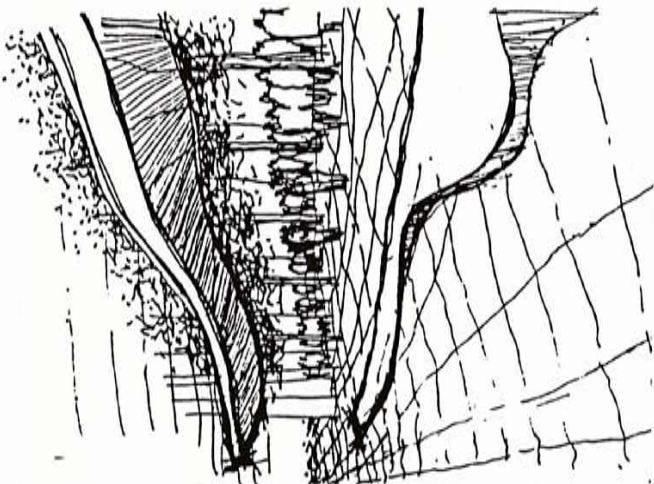
*a main stop at a Place*

*an existing landmark*

Requirement 1.2

NODES SHOULD INTEGRATE WITH THE LIFE OF CORRESPONDING NEIGHBOURHOODS IN ORDER TO BE LIVELY AND DISTINGUISHABLE.

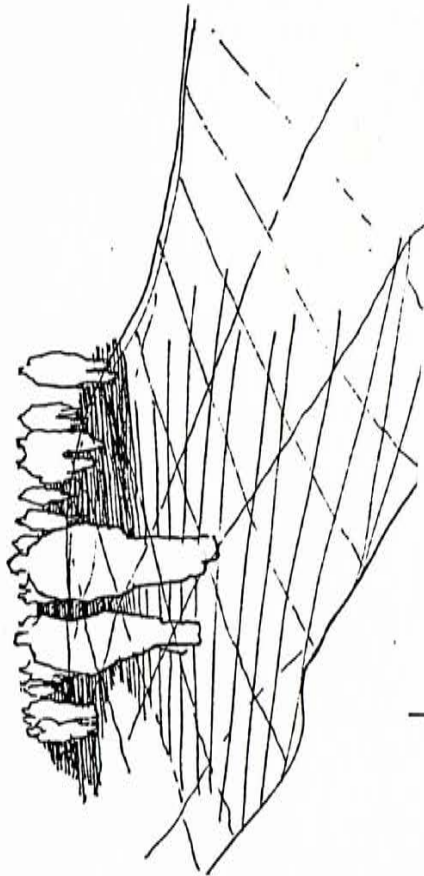
Enhance connections to existing Places :



visibility

accessibility

Integrate functionally with socially significant places :



traffic interchange point

drop-off lobby



Design Issue 2

MAKE ANY JOURNEY  
ALONG THE CHANNEL A  
DELIGHTFUL AND WELL-  
ORIENTATED  
EXPERIENCE.

FRAGMENTS AND NODES

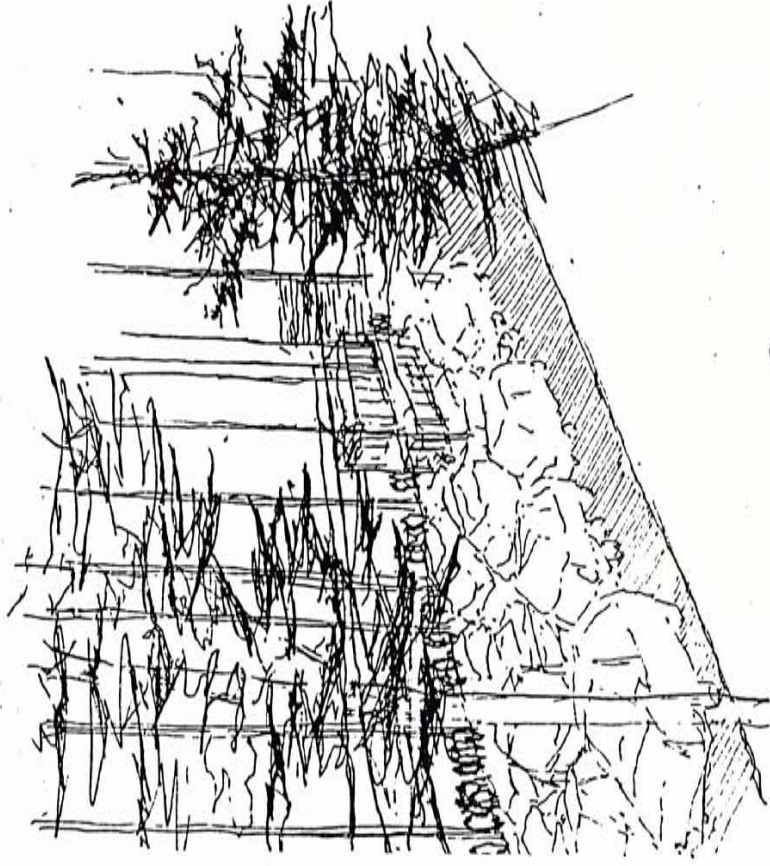
Performance

Requirement 2.1  
ALL PLACES SHOULD BE VISUALLY  
PLEASANT.

INTERVENTION OF ELEMENTS

Concept ideas

Improve streetscapes :



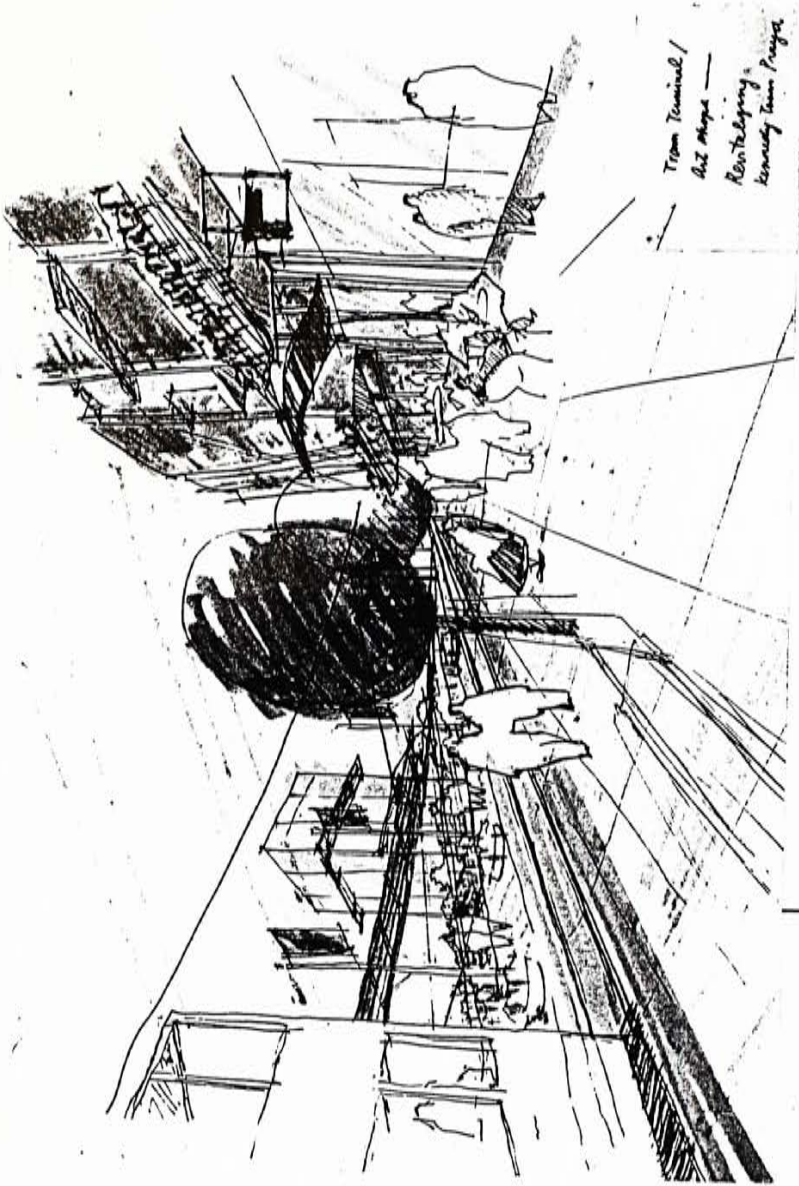
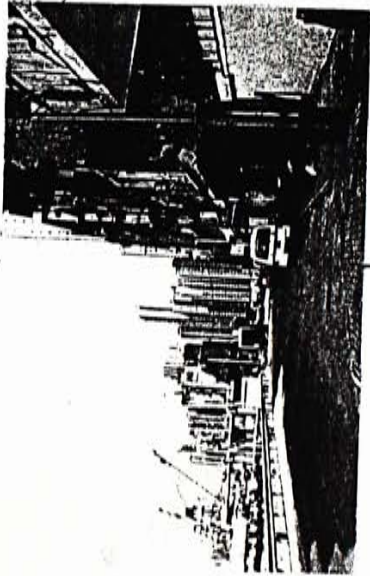
greenery

water features

visual relief

Requirement 2.2  
THE TOTAL ENVIRONMENT  
SHOULD TAKE CARE OF THE  
USERS' PHYSICAL COMFORT.

Humanize Sidewalks :



sitting areas

shading



### Requirement 2.3

USERS SHOULD BE WELL INFORMED OF THEIR POSITION AND ORIENTATION ALONG THE CHANNEL AS WELL AS IN INDIVIDUAL NODES.

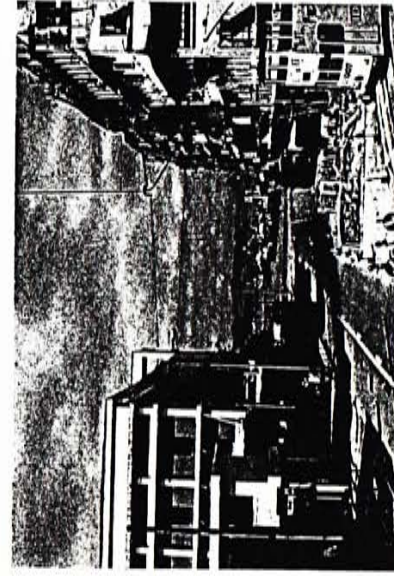
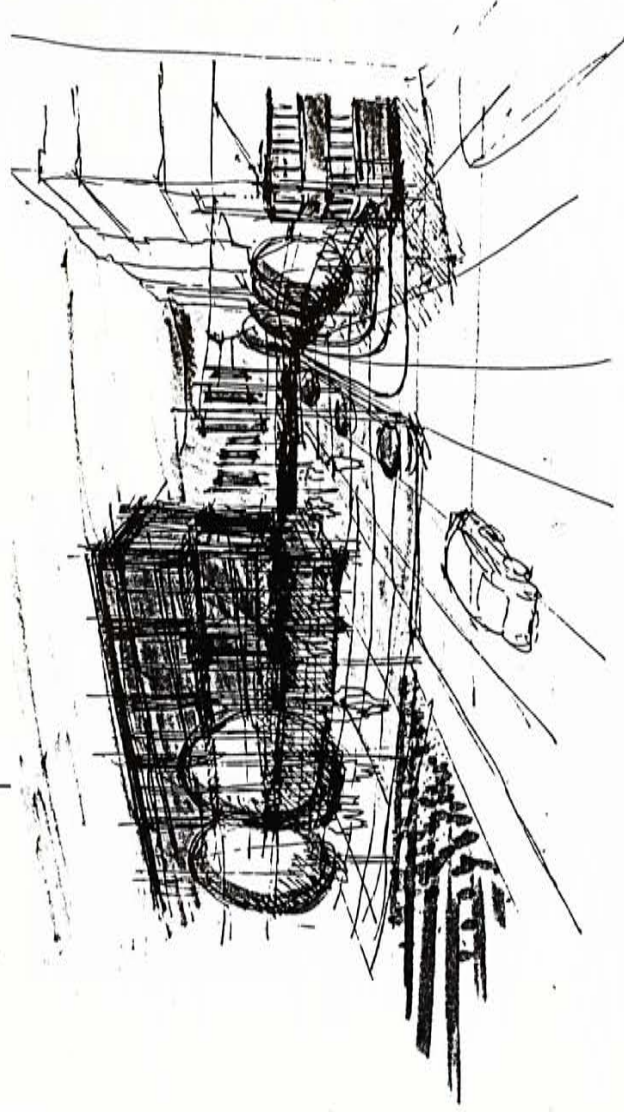
Open views to distinctive features :

landscape

landmark

new focal point

orientation network

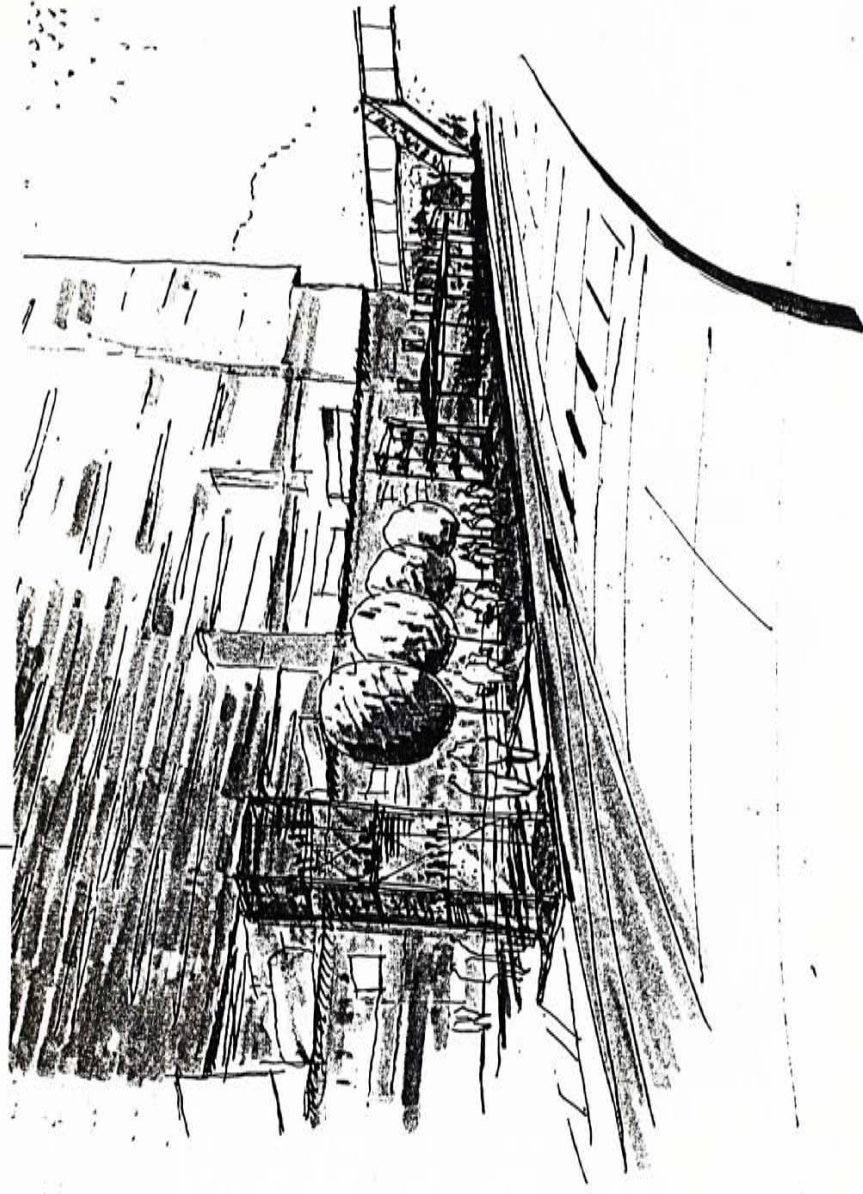


- Kennedy Town Waterfront Centre
- 1 — the largest bookstore, with a wine and a cafe, and a weekend market place.
  - 2 — Refurbishing the station to become a lively market place enhanced with cafe, restaurants and small gathering space.
- (Lee Hells, Paris)  
(Pike Place Market, Seattle)  
Echoes with the Eastern End at Sham Tin Wan Market, as well as North Point Market.

Requirement 2.4

OVER-IMPORTANCE OF TRAFFIC SHOULD BE SCALED DOWN TO SMOOTHEN JOURNEYS AS WELL AS TO IMPROVE THE LOW LEVEL OF ENVIRONMENT..

Traffic relief :



limit access of vehicles

widen sidewalks

1010-1058 King's Road  
— A flower market strip



### Design Issue 3

PROJECT THE  
SIGNIFICANCE OF THE  
TRAMWAY BEYOND THE  
PAST AND THE EXISTING.

### FRAGMENTS AND NODES

#### Performance

Requirement 3.1  
CONNECTIONS SHOULD BE MADE  
FROM THE NODES TO FORGOTTEN  
ASSETS AS WELL AS PLANNED  
DEVELOPMENTS.

### INTERVENTION OF ELEMENTS

#### Concept ideas

Cross the barricades :

*Aluminium*

— Modern art gallery

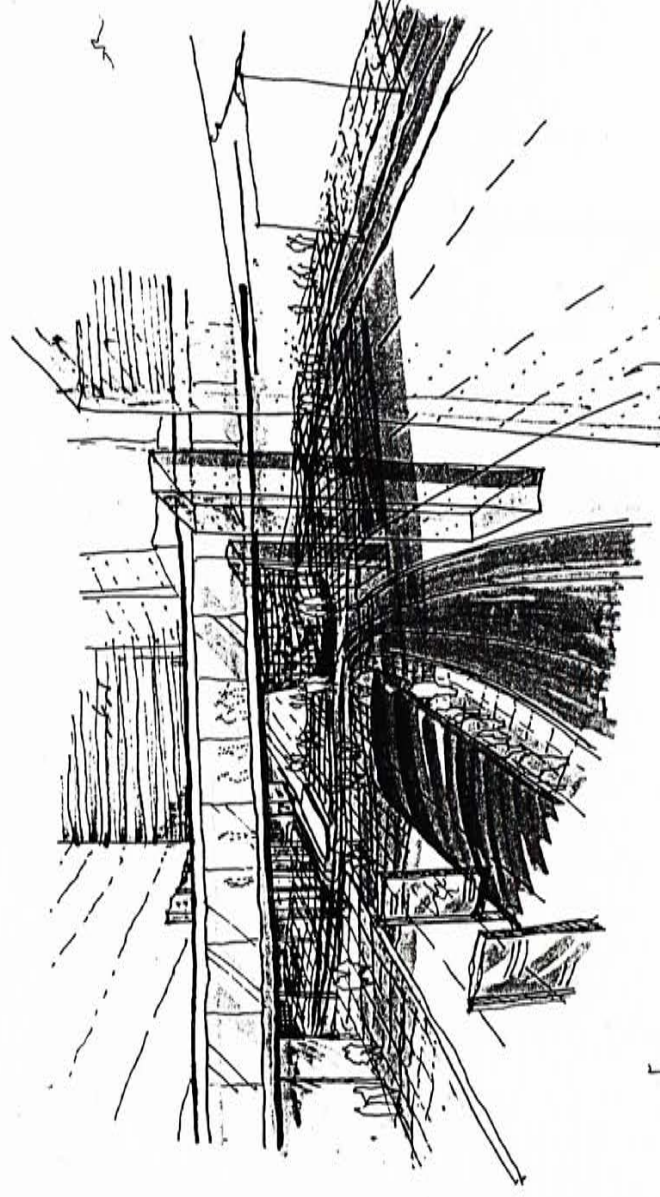
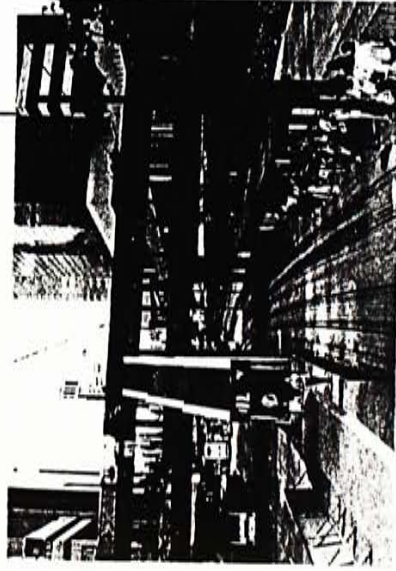
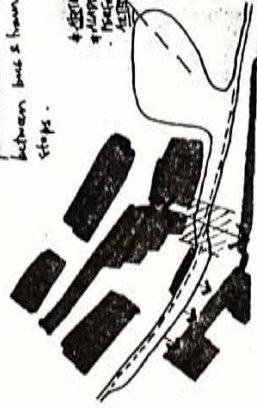
• shops & tracks

• pedestrian crossing

• paint central section

between bus & tram

stops.



Display of art  
• width of road section  
• 8 gallery miles.

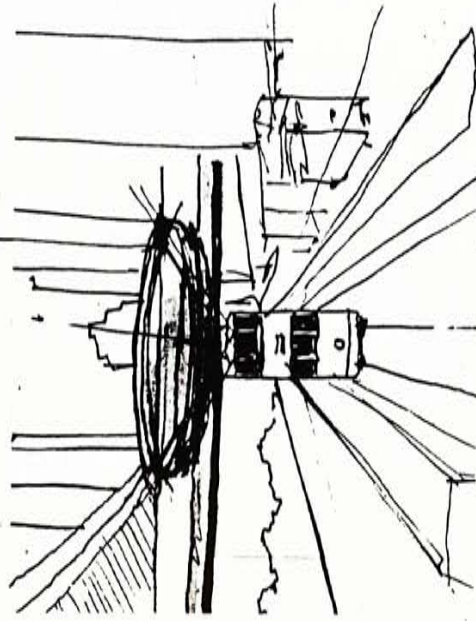
go through buildings

reuse streets

devise new movement systems

Requirement 3.2

EXISTING LOST SPACES SHOULD BE TRANSFORMED AND ACTIVATED SO AS TO CONTRIBUTE TO THE CITY FUNCTIONALLY.

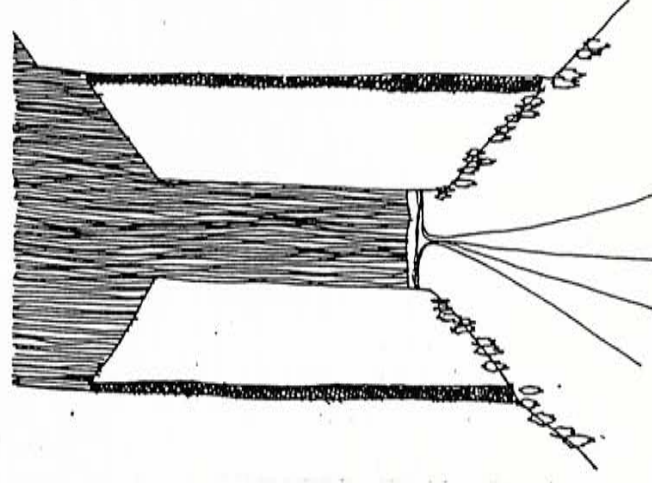


Implement Supplementary programs :  
Specific / Mobile programs

dead open spaces

dark places

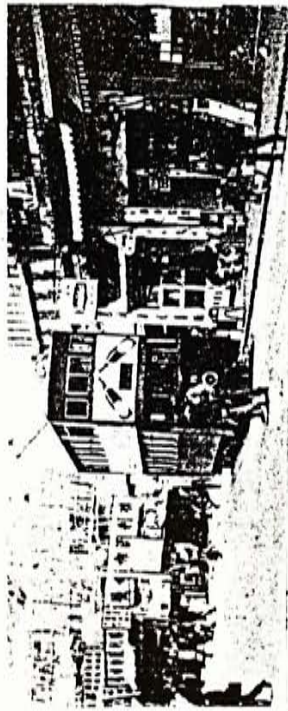
gaps and leftover spaces





STUDY AREA ONE  
**THE TRAMWAY**  
ISSUE : A LINE OF NODES

- massing
- district boundaries
- dominant landmarks
- socially significant places
- greenery
- under-used areas
- waterfront
- new plans for the city



The Tramway in this document refers to the road on which the Hong Kong Tramlines operate.

It is, indeed, an urban corridor in the city spanning 13.3 kilometres from Kennedy Town in the western tip of the island to Shau Kei Wan in the east.

In spite of the recognized social and historic values of the tramlines, which started servicing the island from 1904, general impression people have for the Tramway is seldom positive. In addition to congested traffic conditions during peak hours, a low level environment along the channel is the major degrading factor. Obviously journeys along a channel of such length cannot be delightful with such an environment putting aside the romantic factor of nostalgia to the past and that of an open-air cinematic museum ride. It is perhaps now to consider that while the city steps in to the next millennium, the Tramway and its significance would only gradually fade away if a negative image prevails. An re-interpretation of the total environment of the Tramway is therefore proposed.

The following analysis is an overview of relevant issues which would support the designation of Nodes, a crucial step to build the Spine.



## GAPS



## CONTINUITY OF DYNAMICS



The first figure and ground diagram, which includes only one immediate block enclosing the Tramway, shows spatial variation along the channel in terms of its width and openness. Gaps are not necessarily asking for infill because they are positive in providing a visual and spatial rest. Very often they denote the edge of districts. The second diagram shows the pattern of regional fabrics to the Tramway by high-lighting intensively used areas. The more linear the pattern is, the less the life of an area influences the channel. In some cases the area is industrial and in others the dynamics of further areas are stopped by barriers such as hillslopes and traffic routes.

massing

FRAGMENTS



EDGES

Although the Tramway is theoretically a continuous channel, in spatial and social terms it is made up of successive fragments or, namely, districts. Edges of such fragments are sometimes clearly denoted by natural or built features, other times come in form of a transitional zone. Since the Spine is a complex accumulation of variety, and the contrasts between districts are to be accentuated to stimulate a new continuity, it is important to notice what existing boundaries are.

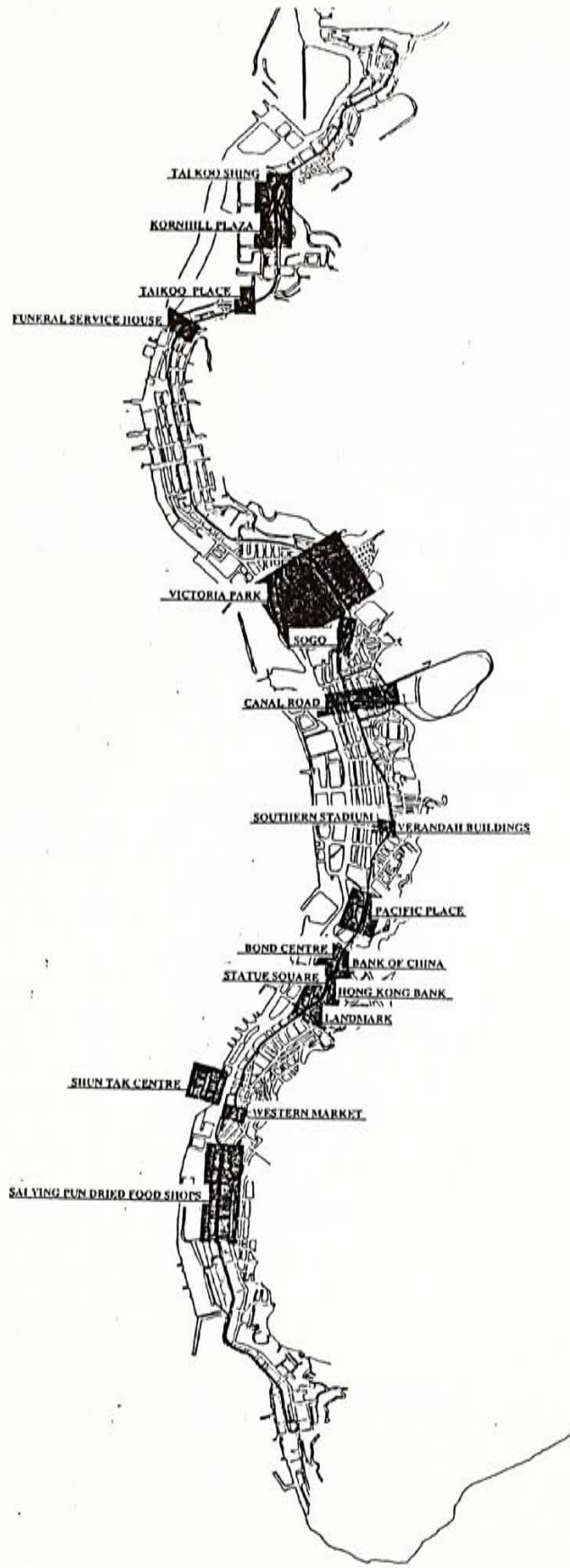
district boundaries



TYPES

- infrastructure
- landscape feature
- mixed used developments
- open spaces
- outstanding architecture
- public service facilities
- public transport terminals
- shopping plazas
- shopping areas
- tourist attraction
- traffic interchange points
- unique building types

DISTRIBUTION



Landmarks serve as points of reference and are essential in making a place or an area memorable. Those along the channel often suggest for an area its arrival point, focus centre and character. In cases where transportation dominates, the connection and relationship of one district to another is also associated.

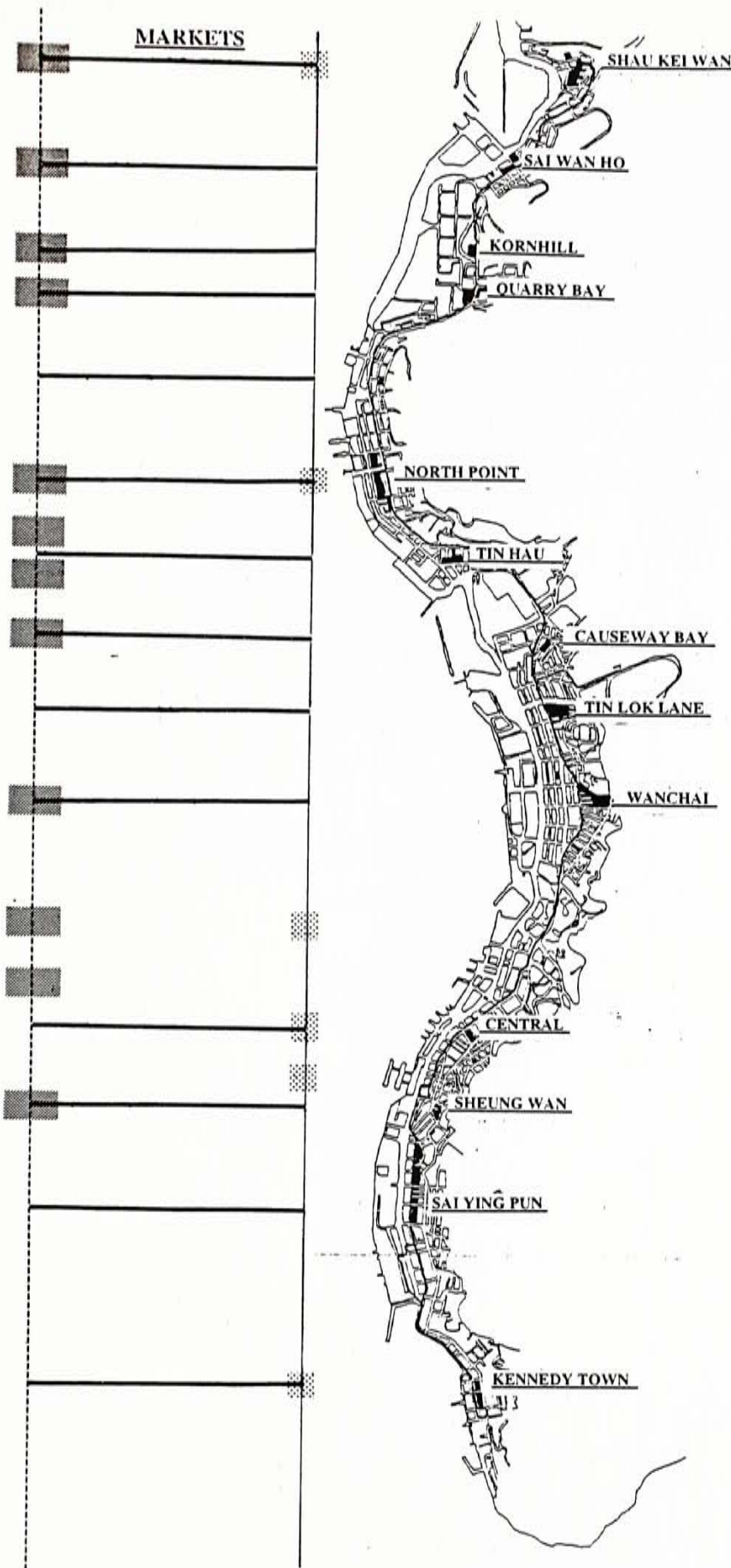
dominant landmarks

## MTR STATIONS

## PUBLIC TRANSPORT TERMINUS

buses  
ferries  
light buses

## MARKETS



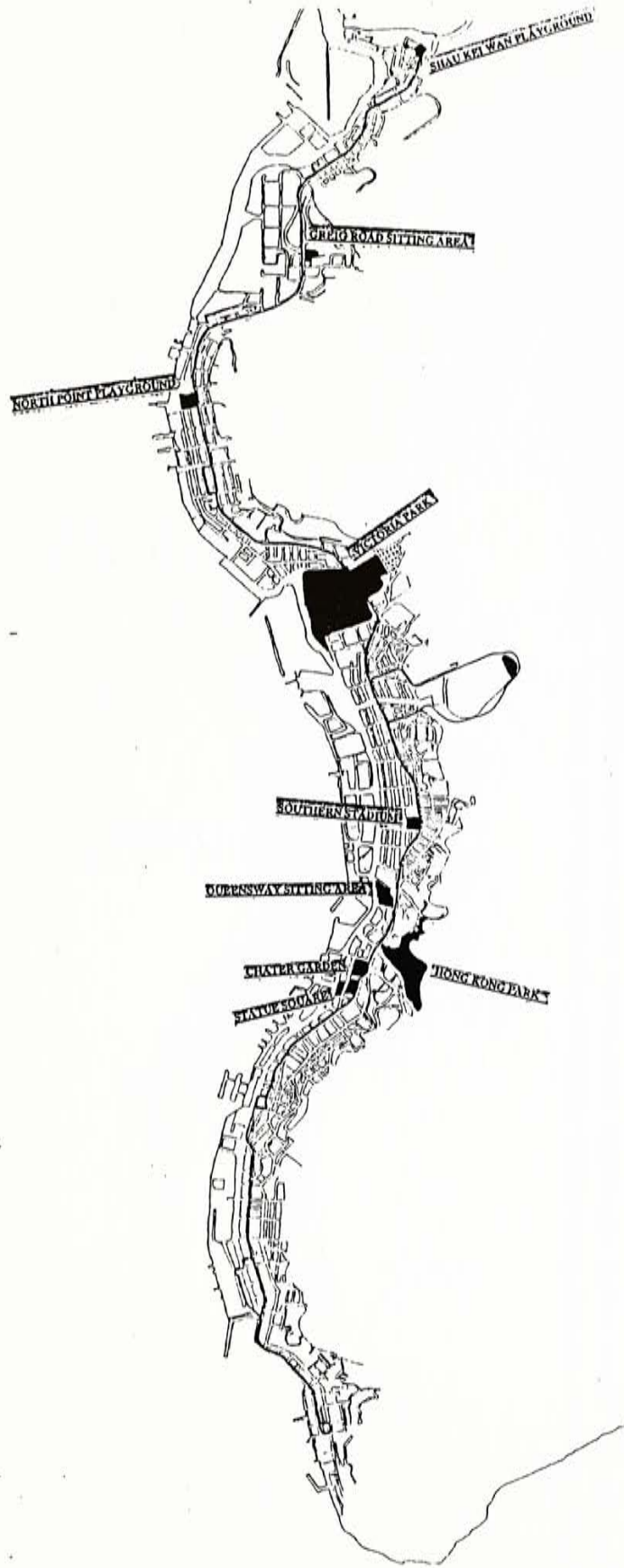
Here shows the parallel relationship of the MTR Island line with the Tramway, and the location of fresh food markets which are visible and directly accessible from the Tramway. In addition, terminals of other major public transportation means are located. It is worth noticing that food supply and transportation means are two essential substance of social life and that their patterns of distribution are not only similar, but also closely related to the Tramway. This reinforces that the Tramway has always acted actively with social importance. Lines put between urban centres mean more than pure physical linkages and should therefore provide an environment addressing and integrating with the life of the neighbourhoods.

socially significant places



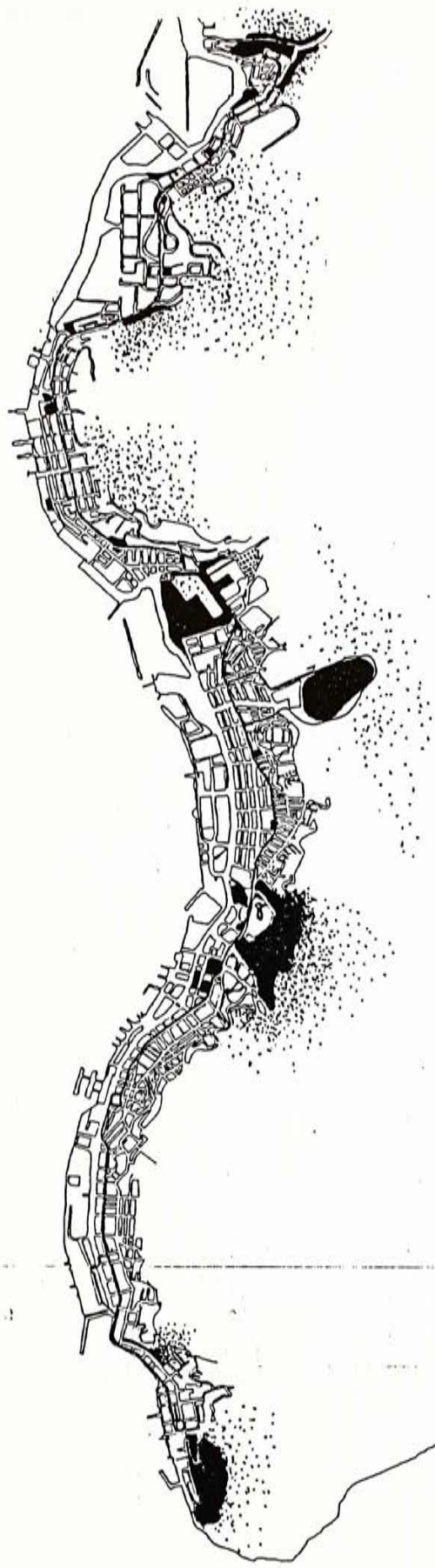
# PUBLIC OPEN SPACES

- TYPES  
gardens and parks  
playgrounds  
sitting areas  
sports ground  
squares



Public open spaces along the Tramway are not many and are unevenly distributed. The major ones are the cluster in Admiralty area and Victoria park, which are spatial as well as visual relieves but are not necessarily easily accessible. Others are mostly pockets of spaces scattered along the channel, and in certain districts there are none of them. It is worth comparing this distribution diagram with that of massing and greenery. Some open spaces are also landmarks and district boundaries. For the everyday user and pedestrian, on the other hand, their availability and comfort level would be more essential an issue.

## socially significant places



This diagram locates greenery immediately visible and accessible from the Tramway, as well as distant “green views” covering both built and natural landscape. Some overlap with public open spaces, some are district boundaries, others are backdrop of the urban scene. Such connections may suggest a system of urban rests.

Unfortunately efforts spent in the channel itself is almost negligible except for Central and the Victoria Park. Vegetation does appear in scattered pockets, most often in leftover spaces, but they do not contribute much to the intensively used streets.

Greenery not only provides physical linkages to nature but also acts a psychological relief. It is especially desirable in dense urban areas seen repetitively along the channel.

greenery



## INDUSTRIAL ZONES

While most fragments of the channel are commercially and, or, residentially used, others are traditionally industrial.

The North Point and Quarry Bay areas are being gradually renewed as mixed used areas but those at the western end of the channel are not. With its closeness to waterfront there is great potential of turning it into a pleasant area.

## UNFRIENDLY OPEN SPACES

Spaces inevitably or unintentionally left over due to certain interventions, and separated from users by barriers such as walls, buildings and freeways are often unfriendly and therefore under-used. They are usually found in peripheral areas of a district where density is less intensive and treated with some vegetation. In positive terms many act as district boundaries and provide green visual relieves.

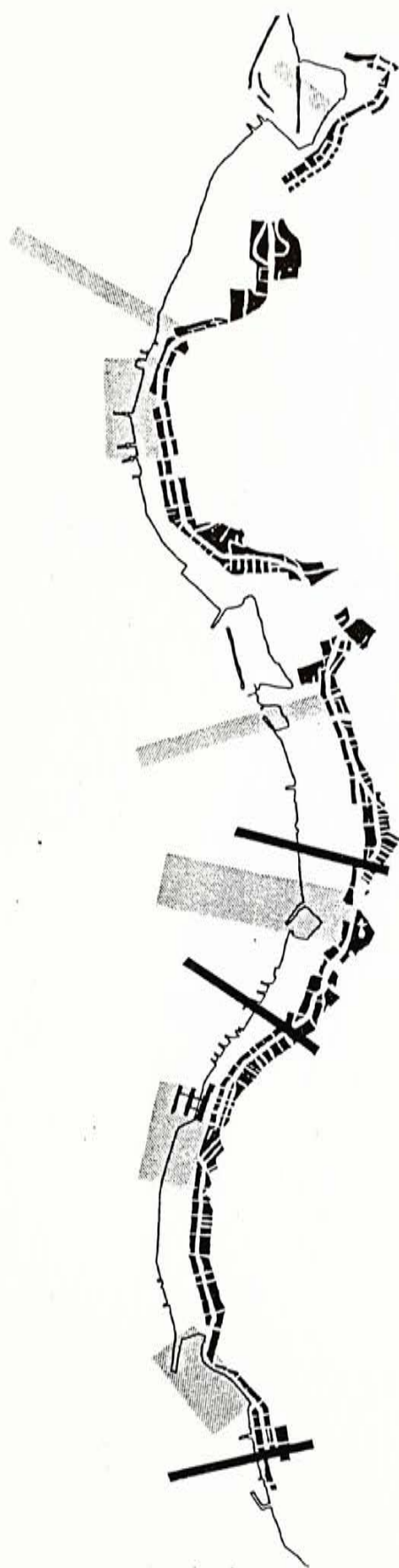


under-used areas

## VISUAL CONNECTION



## PHYSICAL CONNECTION



The Tramway used to run along the waterfront but reclamation over the years has "pushed" it inwards except for the section from Sai Ying Pun to Kennedy Town where it could still be close to the harbour. This will not last long, however, as reclamation is on its way. Accessibility to the waterfront releases pressure of being in a dense city and would most effectively increase the pleasure of experiencing the channel. In addition, the harbour is an important orientation element for wayfinders.

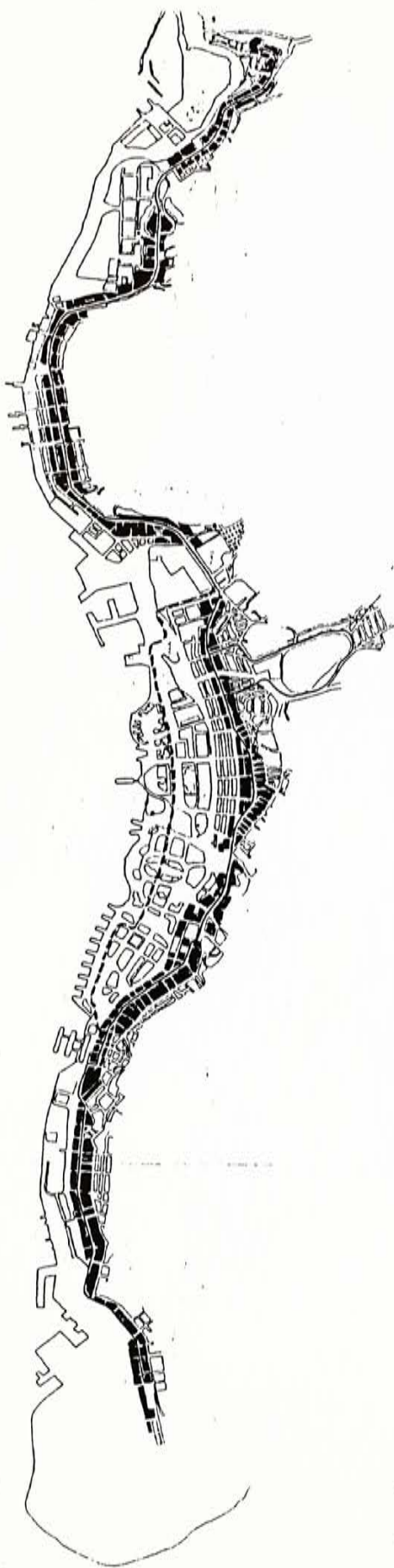
waterfront



## NEW TRAMLINE

A new tramline has been proposed in the Central and Wanchai Reclamation Area which runs from Sheung Wan to Causeway Bay. Inter-junctions points in these two districts would be made to accommodate the line.

This proposal suggests that the Tram has its value as a transportation mode in town and how the new line works with the existing is an issue worth exploring.



## FUTURE WATERFRONT

Reclamation proposed in the Metroplan of 1991 would come into completion phase by phase from 1997 onwards.

New waterfront developments include amenities to vitalize lost opportunities in Kennedy Town, housing in Aldrich Bay and major traffic interchange area in Central and Wanchai. The Spine, while pushed further away from the waterfront, should address connections to major developments on the new land which may serve as landmarks or orientation references.

new plans for the city

STUDY AREA TWO  
**URBAN CENTRES**  
ISSUE : FRAGMENTS AND NODES

forgotten assets  
traffic interchange points  
lost spaces  
streetscape  
environmental enhancement  
place-making



## KENNEDY TOWN

### Role

- western terminal of the Hong Kong Tramline
  - predominantly residential
  - partly industrial
  - accessible to the waterfront
  - open to green hills and natural landscape to the west
- ### Present conditions
- vast space in front of the Hong Kong Abattoir left as a parking lot
  - waterfront used as industrial service lane
  - terminal of the tramline no different than a small stop on the sidewalk
  - reclamation phase I which starts in 1998 will re-provide waterfront facilities

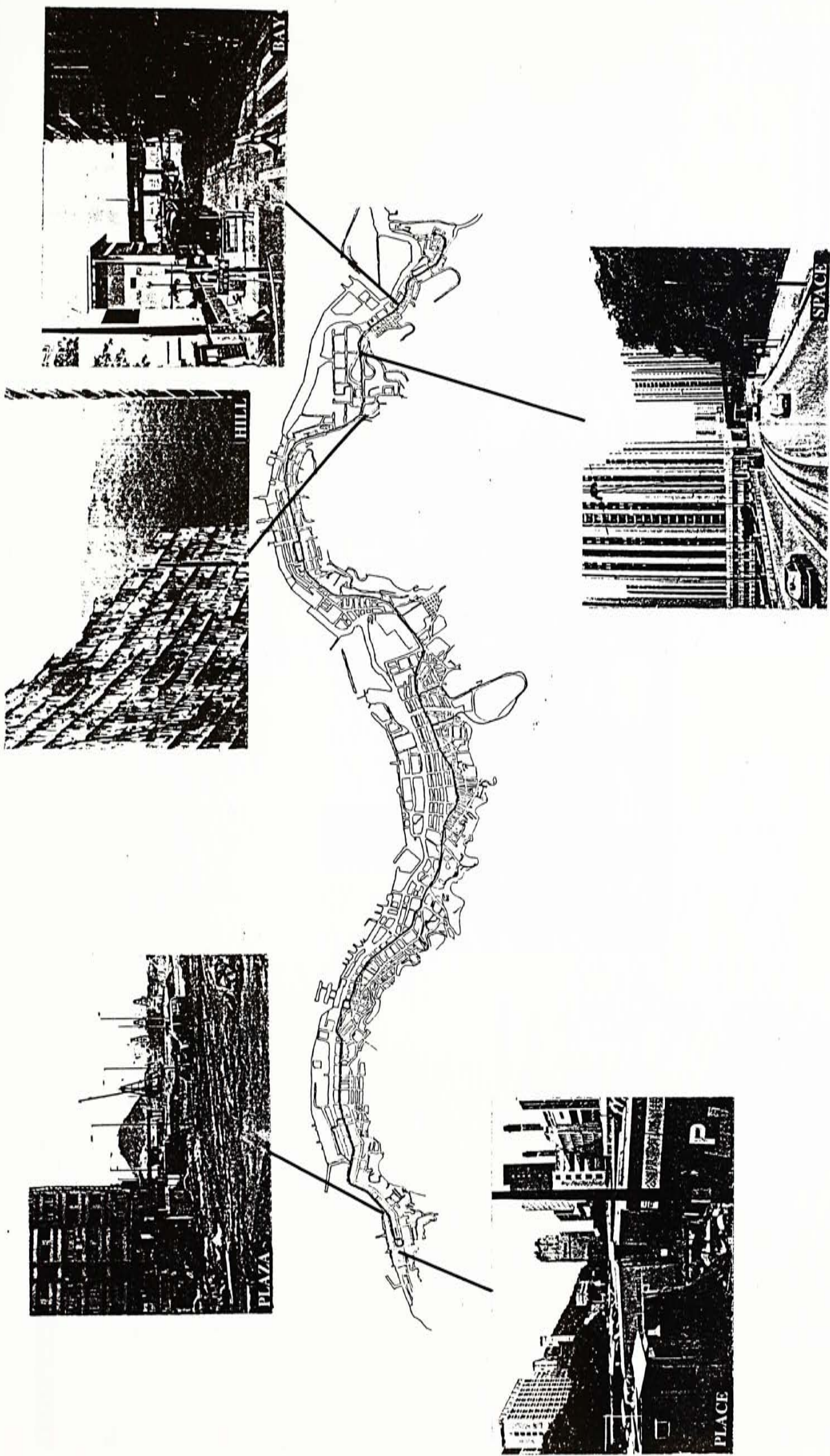


### Issues

- Restate the under-mined role of a terminal as a place
- Make use of under-used spaces and elements to generate new facilities for the city
- Transform the environment to invite functions and events of the community

**forgotten assets**





forgotten assets



**Role**

major traffic interchange centre of Hong Kong Island  
contemporary extension of Central as a major commercial  
centre

predominantly commercial, shoppers and tourist orientated  
access to Hong Kong Park

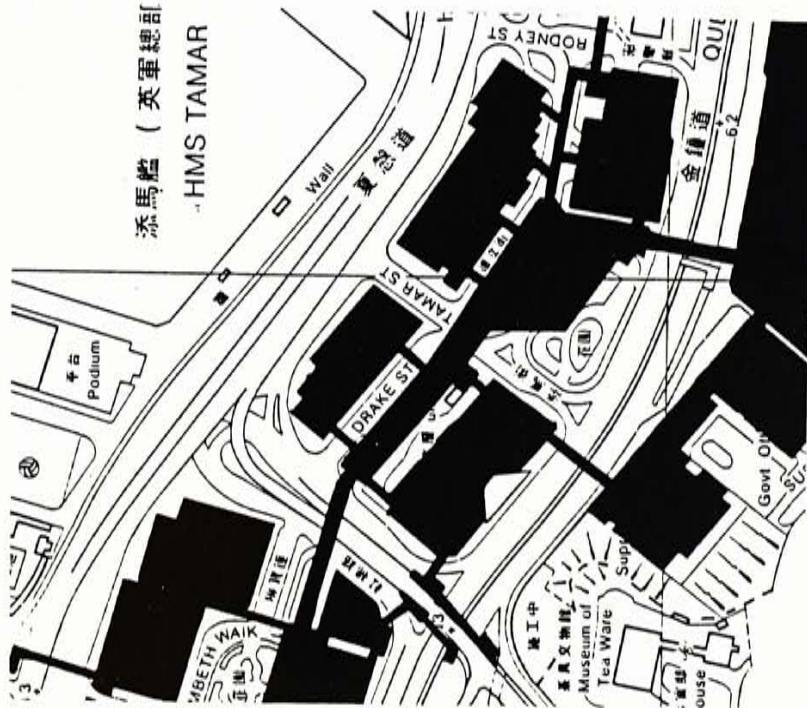
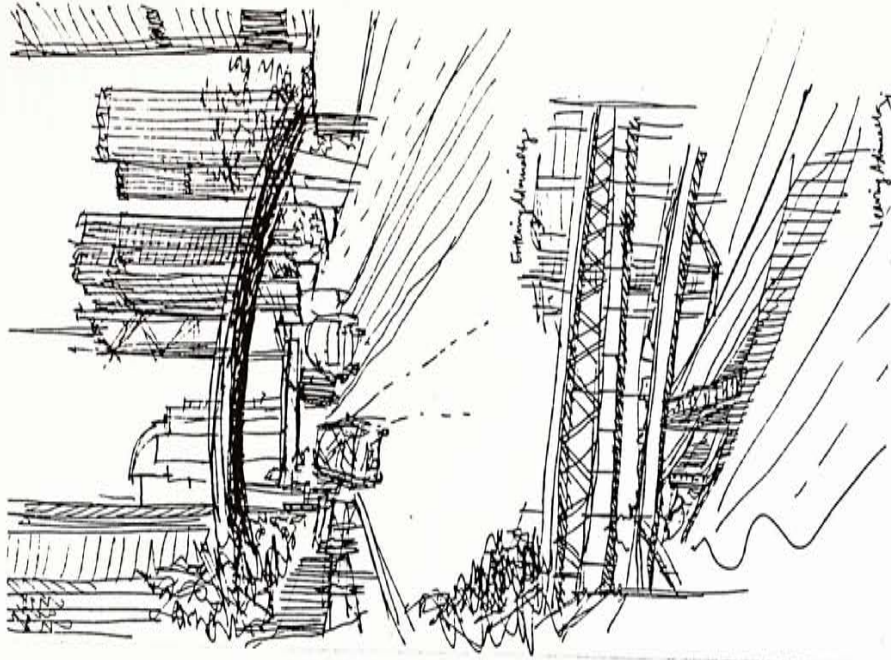
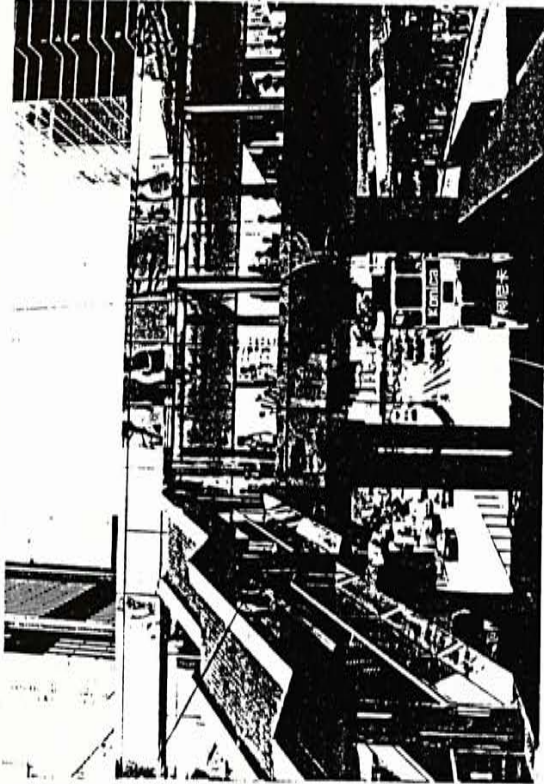
**Present conditions**

spacious channel with extensive green backdrop

no street life

no sense of place on street level

totally traffic orientated



**Issues**

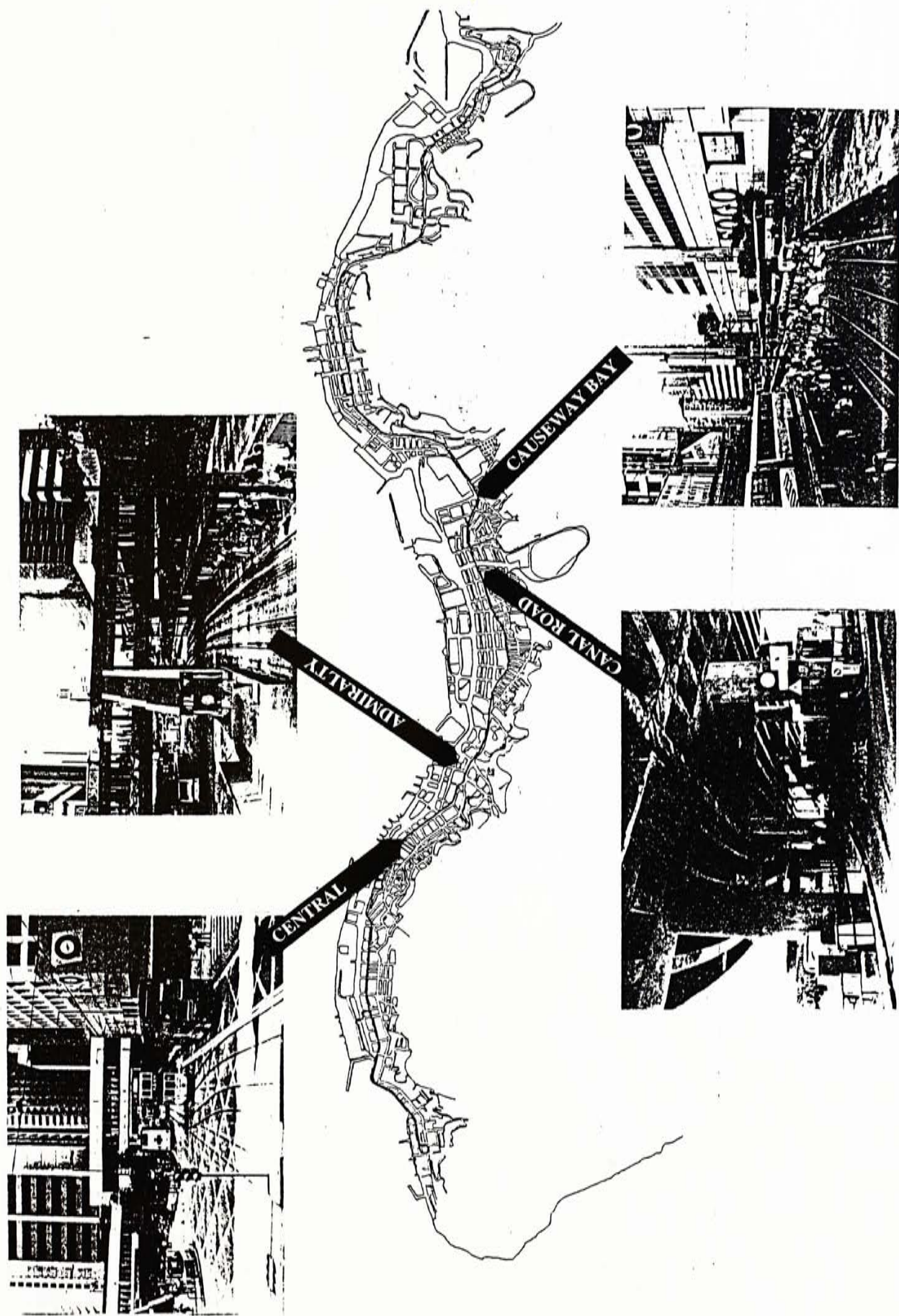
Improve sidewalk conditions for the physical comfort of users

Establish a sense of place for street level traffic interchange points

Make use of existing greenery and open spaces to integrate green urban life with the built environment

**traffic interchange point**





traffic interchange point



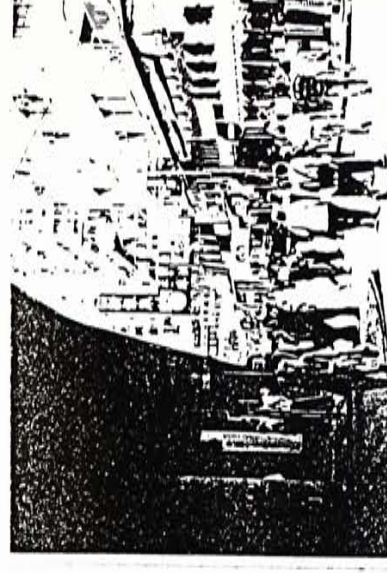
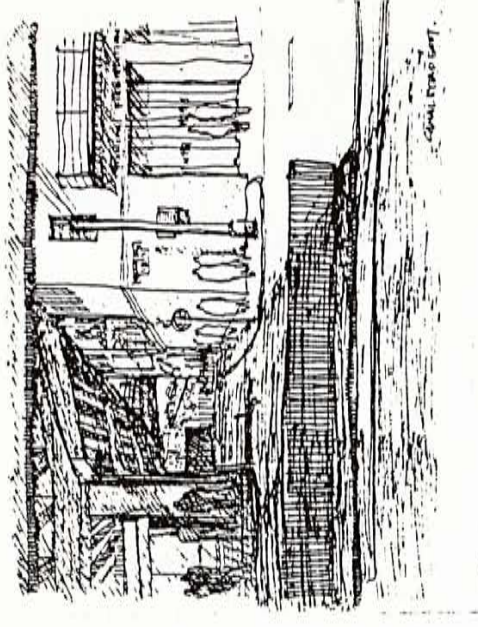
## CANAL ROAD

### Role

- upper level flyover is the major traffic route to the Cross Harbour Tunnel
- official district boundary between Wanchai and Causeway Bay
- connects Causeway Bay to Tin Lok Lane fresh food market, one of the largest and most popular

### Present conditions

- street level accommodates a tram-stop, a major line of bus stops, a gas station, two sitting areas, a small community centre and public toilets
- busy sidewalks along the section between Times Square and the market
- the side with the community centre and toilets is especially dark and unfriendly, a popular place for homeless people at night



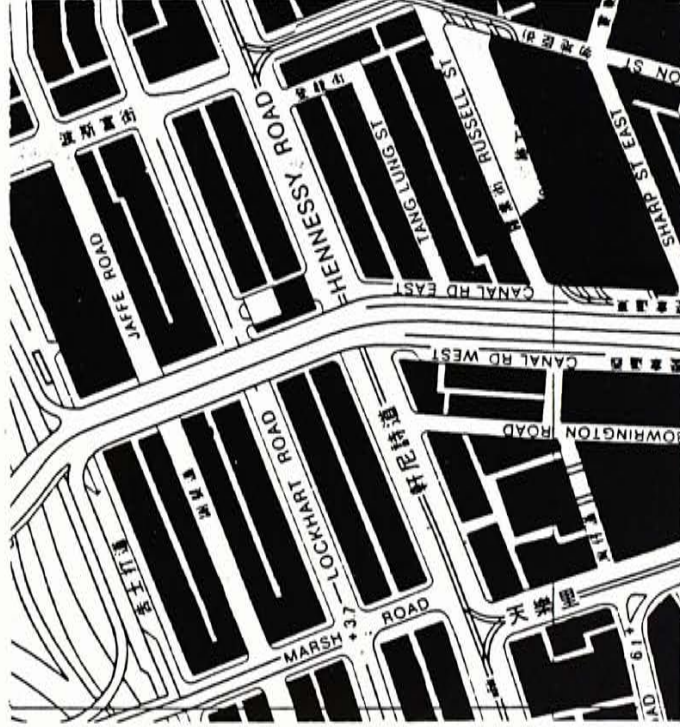
### Issues

Make the best use out of leftover, almost unusable spaces

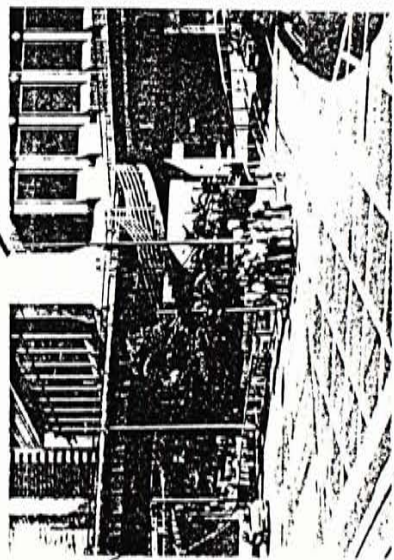
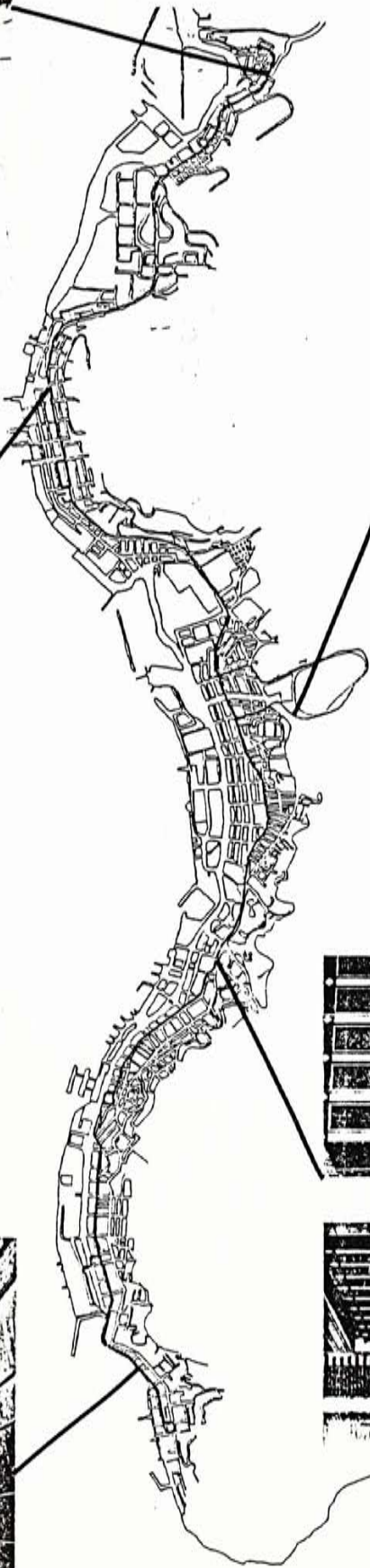
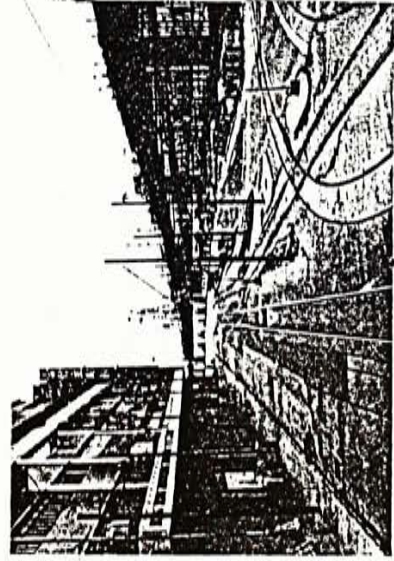
Vitalize unfriendly dead zones by re-programming so that they contribute to the city

Re-connect lost spaces to urban centres so as to eliminate "unsafe" no-man land

## lost spaces







lost spaces



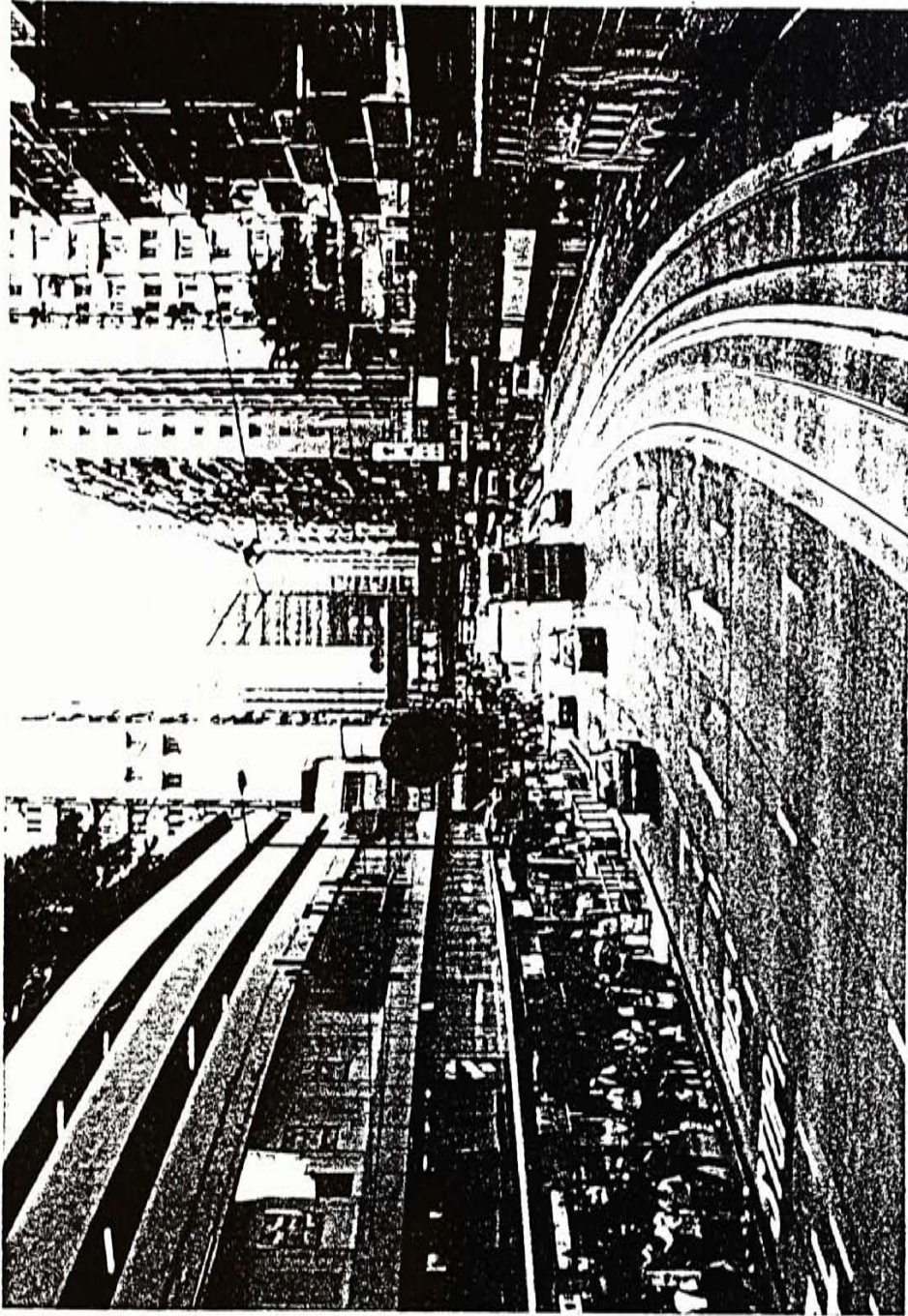
## NORTH POINT

### Role

- urban centre of the Island's north-east region
- predominantly mixed used
- partly commercial along the Tramway
- industrial in peripheral zones

### Present conditions

- Tramway is traffic-oriented
- no vegetation nor other pedestrian friendly features
- monotonous wide street section through the district without relief nor variation
- no distinguished focal point

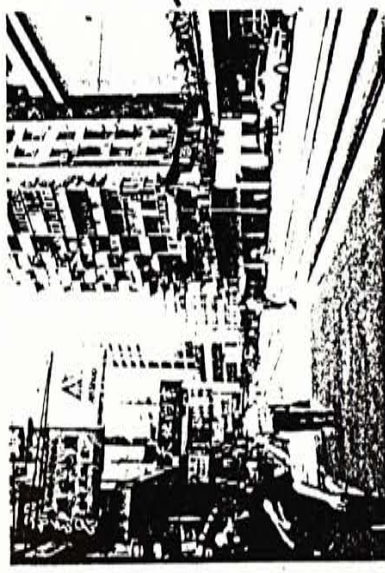
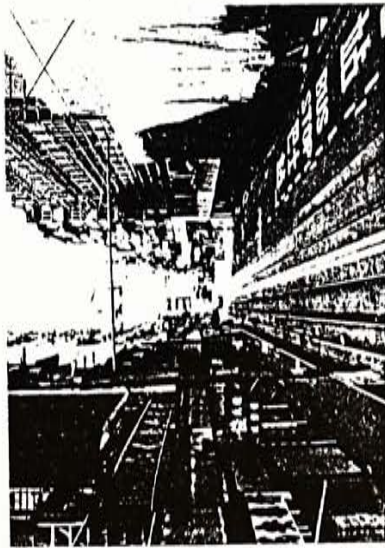
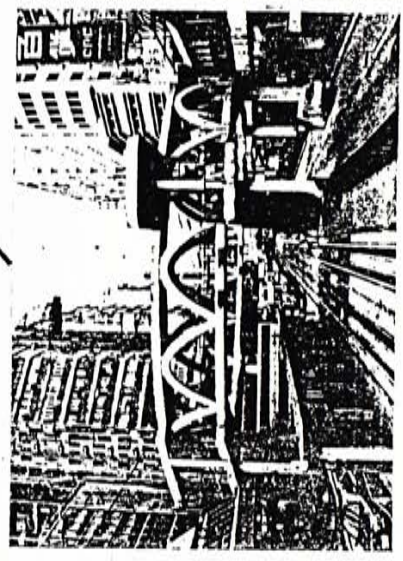
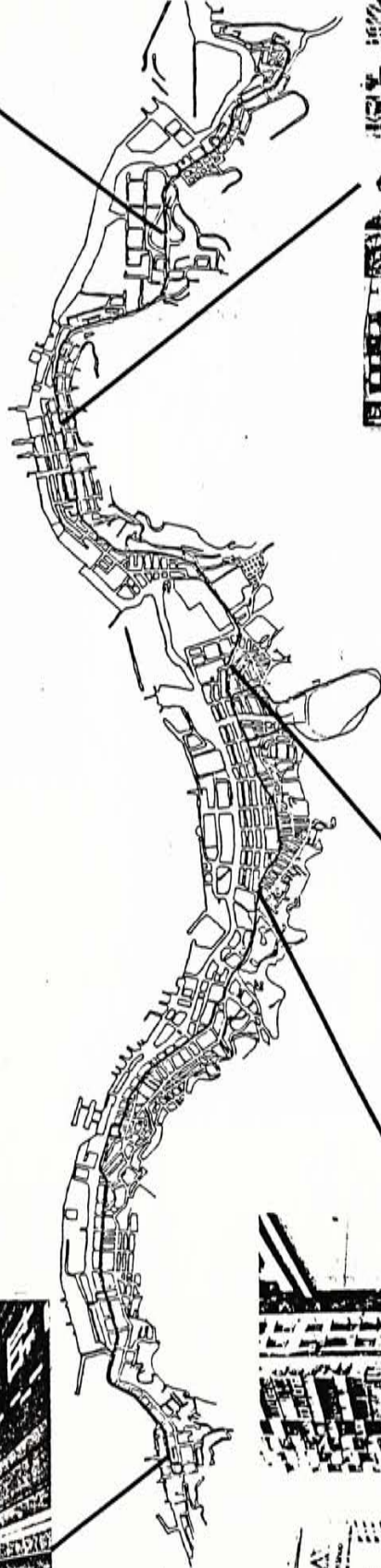


**Issue**

Humanize the environment with soft living features for the pleasure of pedestrians  
 Increase variation of spatial experience along the channel to generate a lively rhythm  
 Incorporate visual, physical and spatial elements of a street to make journeys delightful

**streetscape**





streetscape



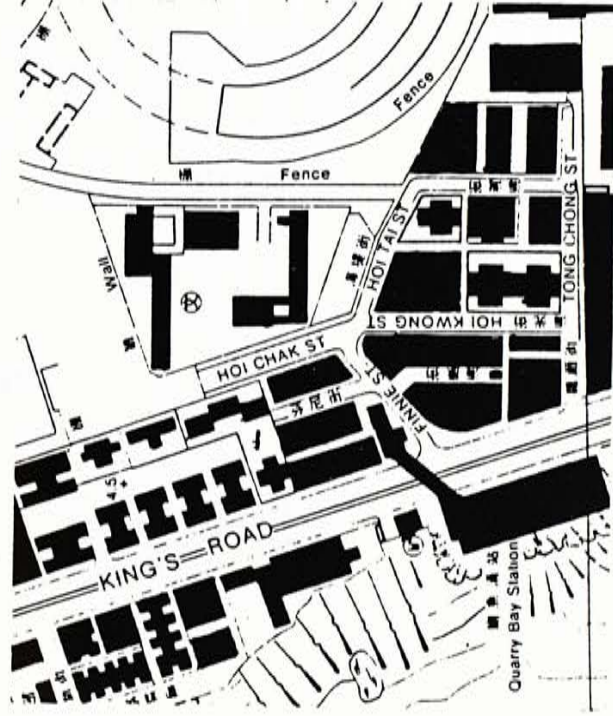
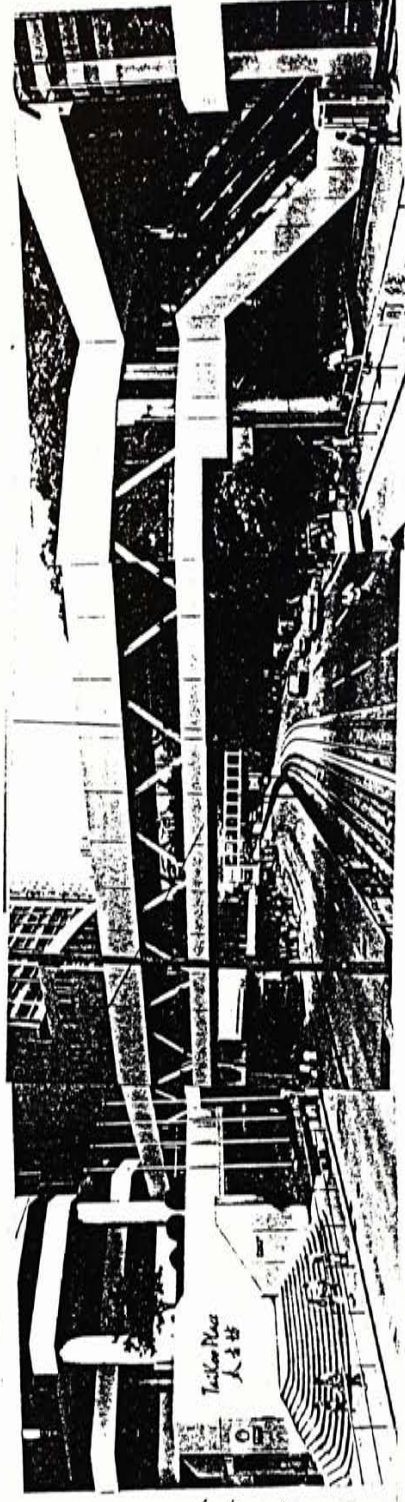
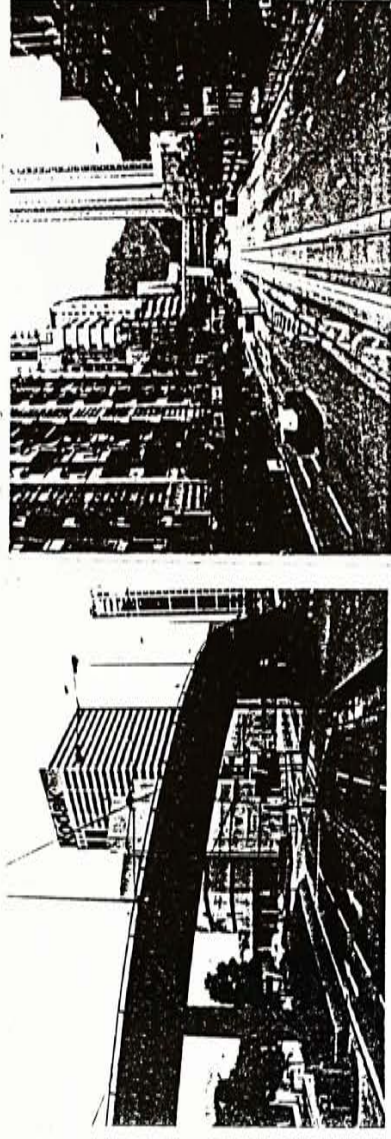
## QUARRY BAY

### Role

- water side of the Tramway turning from predominantly industrial to commercial and light industrial mixed used
- hill side predominantly residential with several public housing estates
- underground MTR interchange point

### Present conditions

- accelerating growth of business sector thus new office buildings
- industrial zone at the waterfront, separated from the residential area by traffic route and building blocks
- traffic-orientated Tramway is wide, hard and dry
- streets are busy especially during daytime with office workers as well as residents of estates
- hill side of the Tramway is defined by a retaining wall, giving clear direction to the water side
- waterfront recreational facilities not addressed

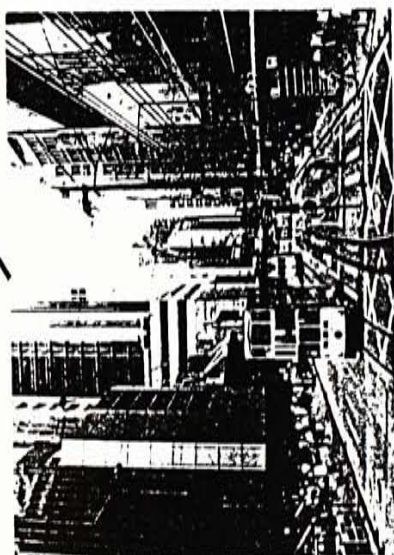
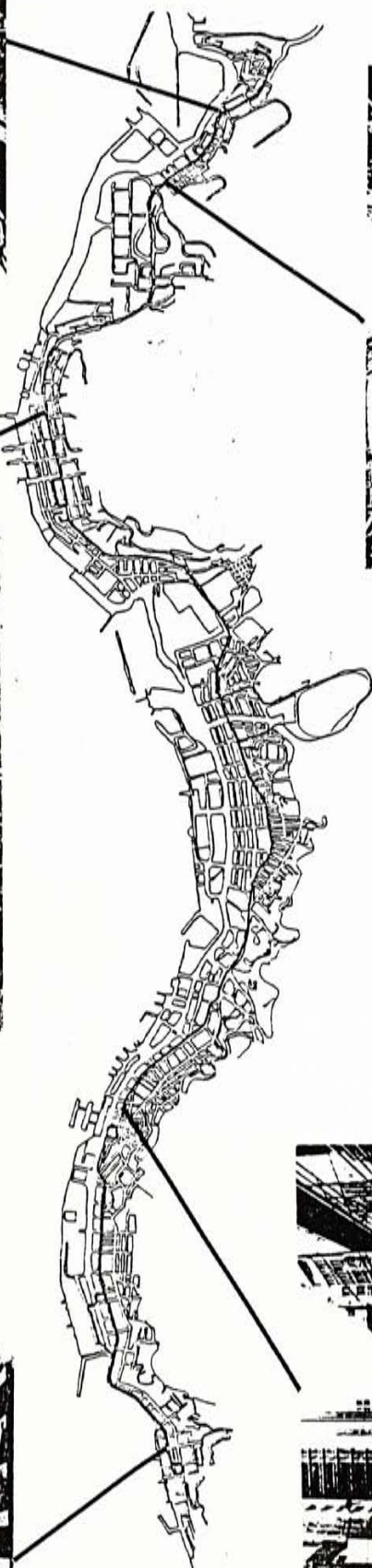
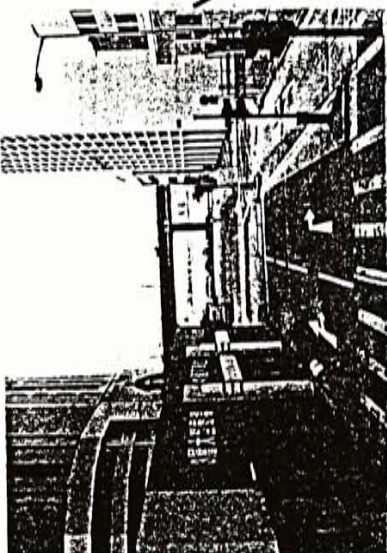


### Issues

- Utilize the accessible waterfront
- Bridge the hill side and the water side across the Tramway
- Tie fragments of the district by enhancing both natural and built landscapes
- Transform the district to a new, green and friendly area

## environmental enhancement





environmental enhancement

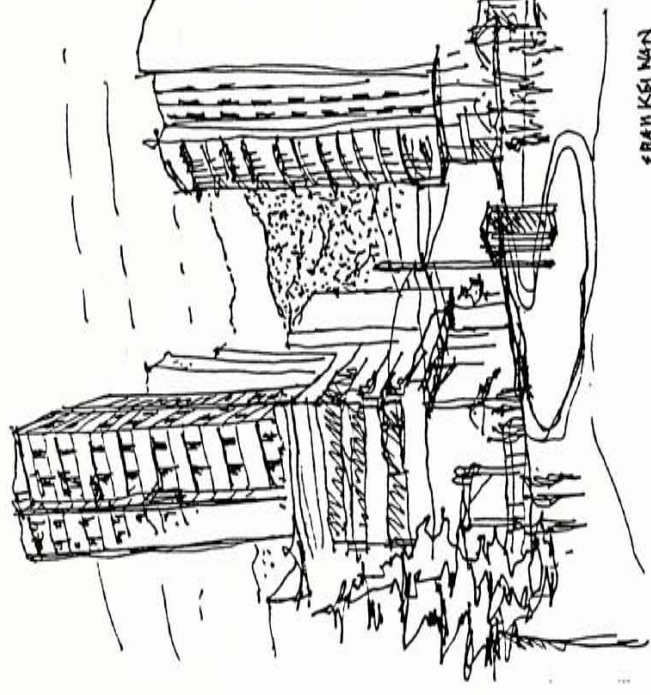
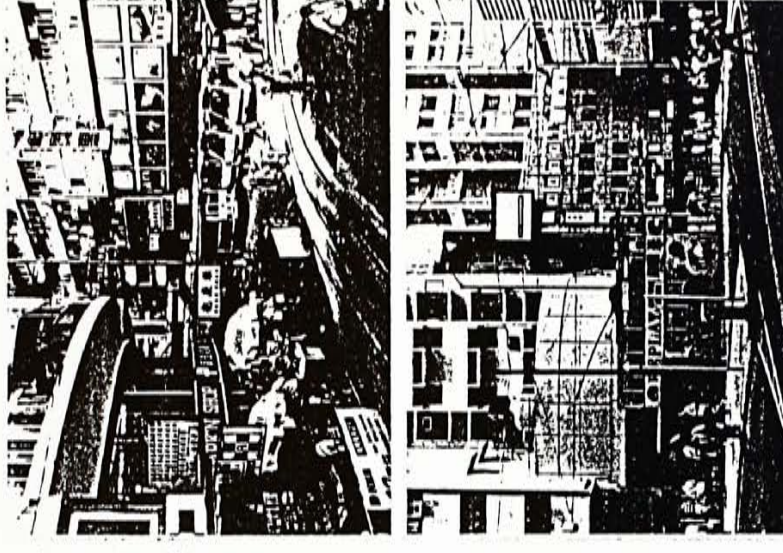
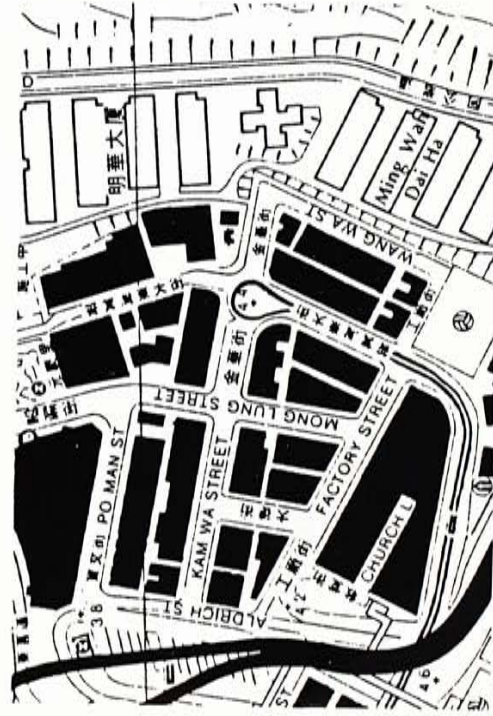


## Role

- eastern end of the Tramway
- natural topography prevents further expansion to the east
- public housing estates situated on the hills
- traditional urban centre of the Island's eastern region
- the largest fresh market of the region

## Present conditions

- the tramline terminates with a cur-de-sac at the periphery of the fresh market, meeting the terminal of the island minibus line which runs parallel with it
- the terminal represents the district's traditional arrival and departure concentric point
- MTR exits seem to lead to nowhere
- communal living centre is the open air market
- communal gathering place is a loose piece of land around the bus terminus, including some sitting area under an elevated freeway entrance
- as a whole street life of the district is busy but fragmented with little structure, planning and environmental concern



## Issues

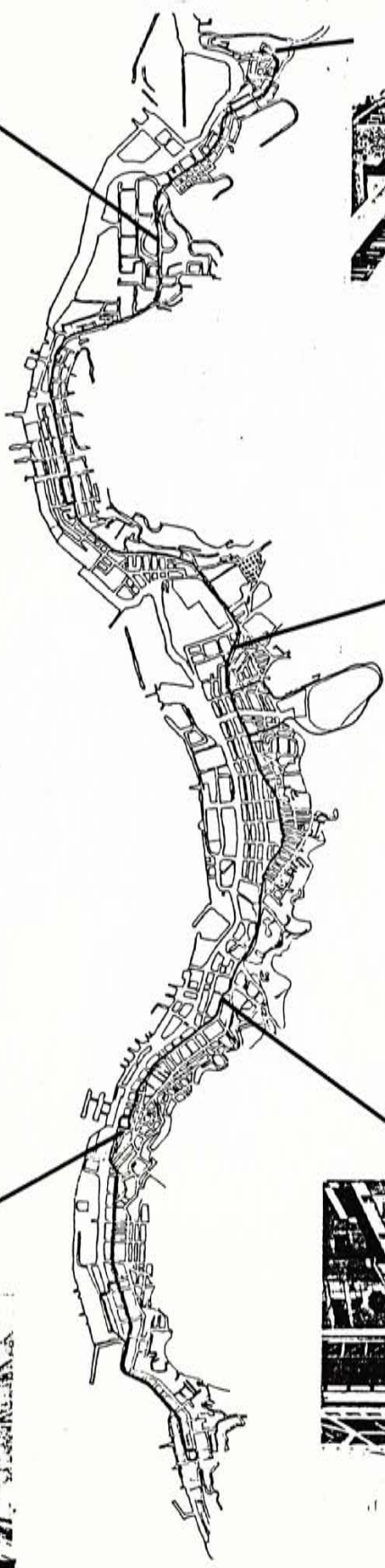
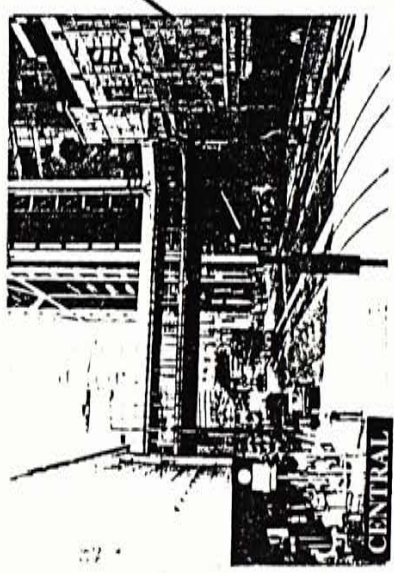
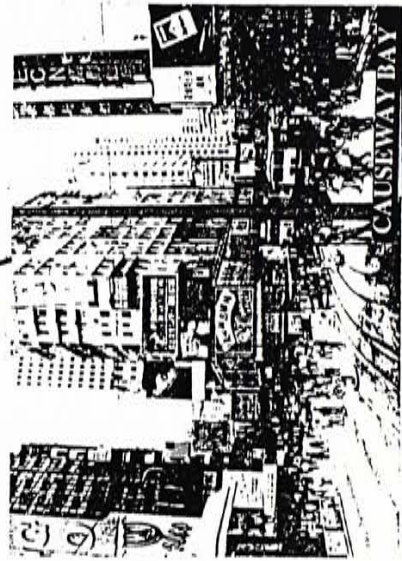
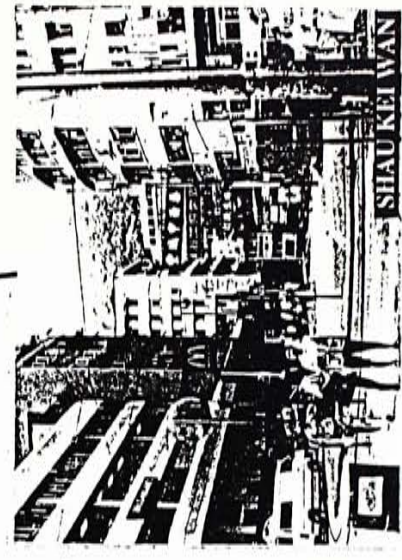
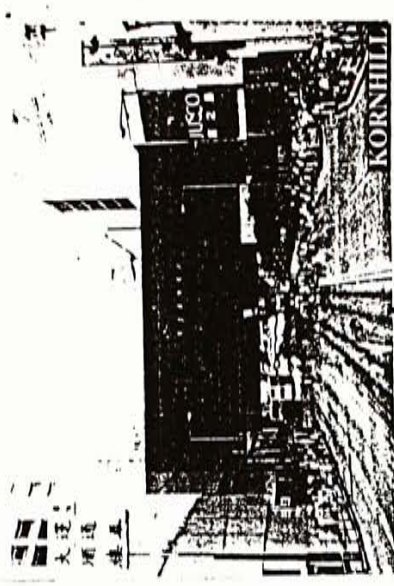
Make a place at dominant arrival points, especially those that intersect with the local urban life

Improve the environmental qualities of communal places

Uncover underlying ties among places of an urban centre to generate an integrated whole

## place-making





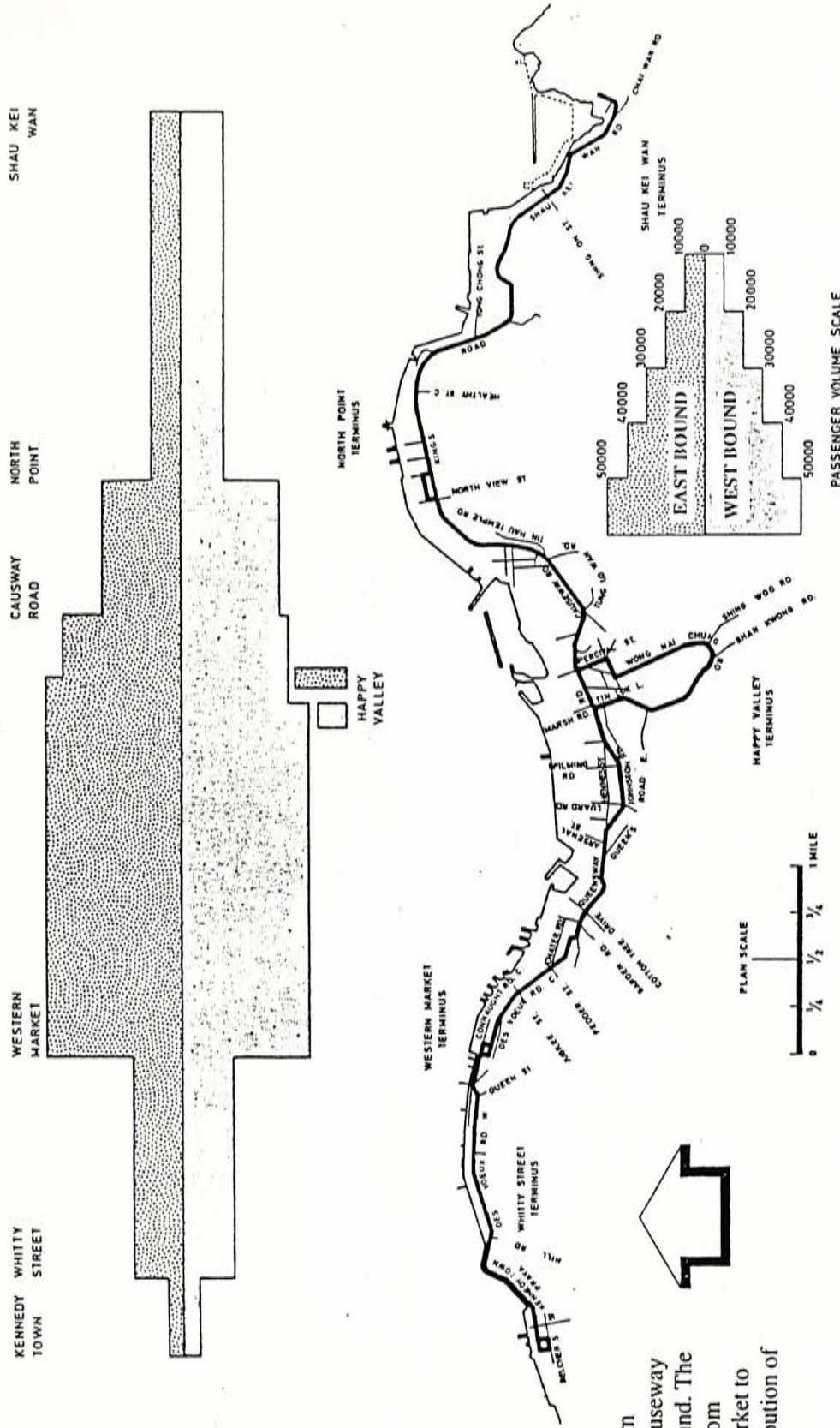
place-making



STUDY AREA THREE  
**THE TRAM SYSTEM**  
ISSUE : INTERVENTION OF ELEMENTS

# PASSENGER VOLUME AT EACH SECTION

Tram Route Studies Technical Report 1973  
Territory Transportation Services Department



The 1973 survey shows that the section from Western Market, which was a fresh market at that time, to Causeway Bay is the most heavily used, both east and west bound. The volume of passengers drops sharply in the section from North Point to Shau Kei Wan and from Western Market to Kennedy Town, which reflects the population distribution of these districts then.

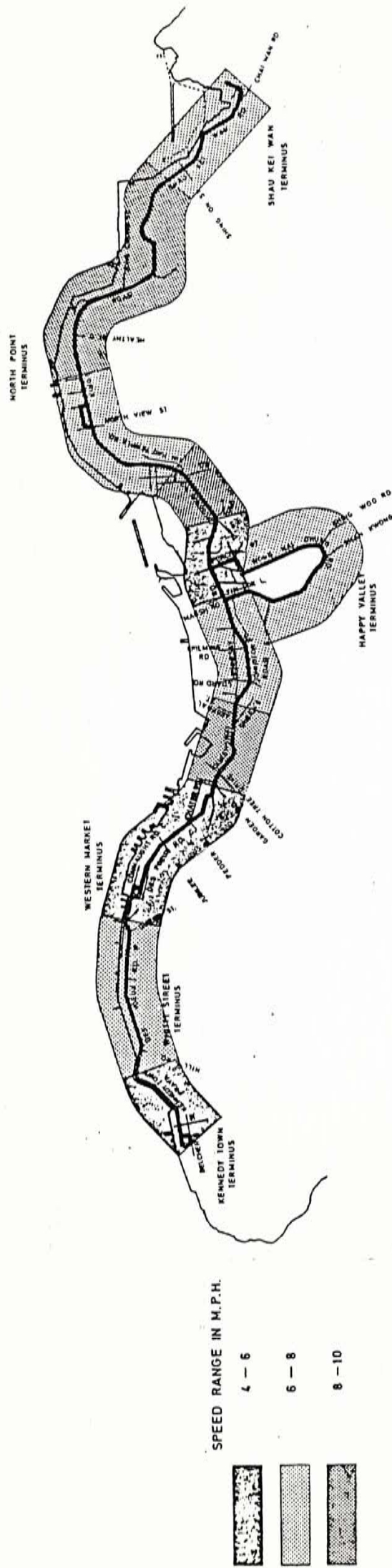
The overall passenger volume would have changed drastically over these years due to rapid developments of other transportation modes. On the other hand, one would expect a relative increase in passenger volume from North Point to Quarry Bay now, as they have changed from being predominantly industrial to commercial and residential mixed used. The west end, however, has relatively grown less.

operational patterns



# AVERAGE SPEED AT EACH SECTION

Tram Route Studies Technical Report 1973  
Territory Transportation Services Department



The average journey speed of trams has not varied over the years. In the 1980s the average speed was 6-7 m.p.h. whereas the average highest speed was 8-10 m.p.h.

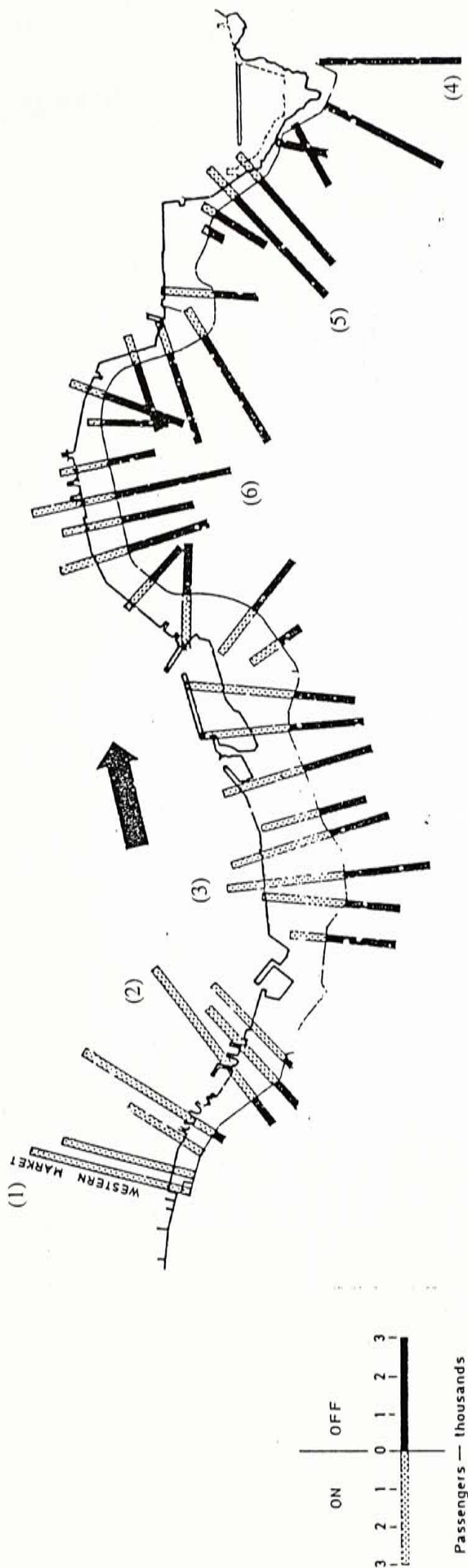
Queensway at Admiralty, Causeway Road along Victoria Park and from North Point to the nowadays Taikoo Shing are the sections trams run with the highest speed. From Western Market to Central and from Tin Lok Lane to the eastern edge of Causeway Bay, both business and commercial areas where heavy traffic seems inevitable during peak hours, are sections they run with the lowest speed. These patterns are still true nowadays.

operational patterns

RELATIVE IMPORTANCE OF STOPS

Tram Route Studies Technical Report 1973  
Territory Transportation Services Department

EAST BOUND



Stops of the highest get on rate:

- Western Market (1)
- Des Voeux Road Central near Pedder Street (2)
- Johnston Road near O'Brien Road (3)

Stops of the highest get off rate:

- Shau Kei Wan terminal (4)
- Shau Kei Wan Road near Tai Hong Street (5)
- King's Road near Shu Kuk Road (6)

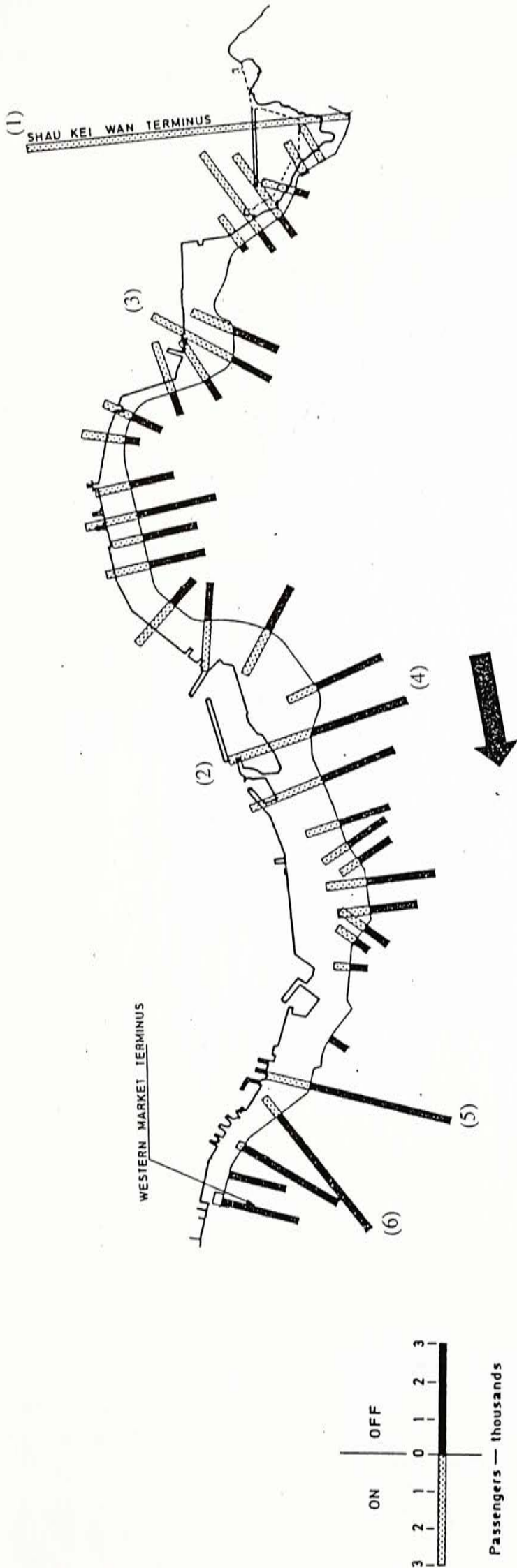
operational patterns



RELATIVE IMPORTANCE OF STOPS

Tram Route Studies Technical Report 1973  
Territory Transportation Services Department

WEST BOUND



**Stops of the highest get on rate :**

- Shau Kei Wan Terminal (1)
- Yee Wo Street near Great George Street (2)
- King's Road near Westland Road (3)

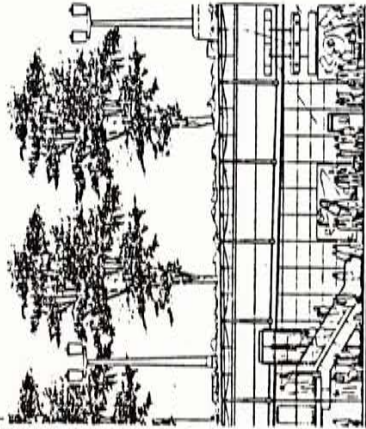
**Stops of the highest get off rate :**

- Yee Wo Street near Great George Street (4)
- Des Voeux Road Central near Ice House Street (5)
- Des Voeux Road Central near Li Yuen Street (6)

operational patterns

PRECEDENT : urban studies

CASE 1



Project : Berlin U5 Bahnhof Line

Type : competition

Program : a prototypical station for the underground Berlin U5 Bahnhof line

Site : from Alexanderplatz of eastern Berlin

Projection : the line would integrate with the greater Metropolitan underground network

Architect : Richards Rogers

Concepts : 1. to integrate the stations, through a sequence of spaces from street to train, into the city's streetscape

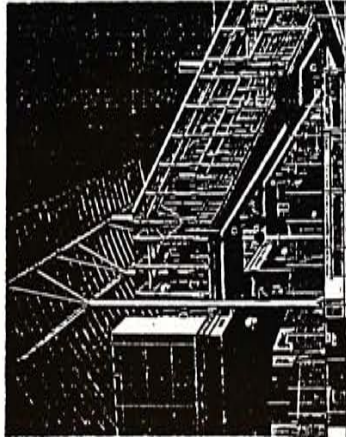
2. to lit the platforms with natural daylight with skylights so as to provide view to the outside and obtain "an atmosphere of an extended street rather than a disassociated underground world".

Relevance : the atmosphere resulted in providing visual projection ; the transformation of traditional stations ; linear organization .

Source of information : Architectural Design 1994 Profile No. 109 --- Architecture of Transportation.

PRECEDENT : urban studies

CASE 2



Project : Beckton Extension to the Docklands Light Railway

Date : March 1994

Program : 10 new stations for the 8 km extension of DLR

Site : stations from Bank to Stratford and Isle of Dogs, London

Requirements : 1. improve the original stations

2. maintain an overall identity for the DLR

3. produce a unified design for different station types

4. create a safe and comfortable environment without losing the informal sense of a light railway

Architect : Ahrends, Burton & Koralek

Concepts : 1. continuity by preserving high transparency and by colour

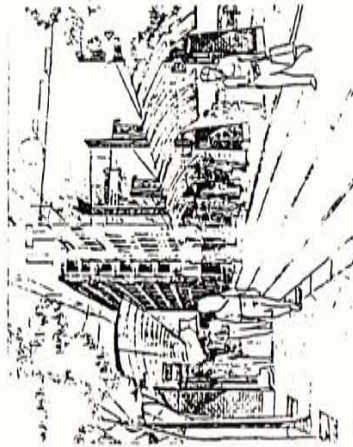
2. flexible standardization by modular design to enable reproduction

Relevance : architectonic expression

Source of information : The architect's Journal, issue no. 27 April 1994

PRECEDENT : urban studies

CASE 3



Project : Dallas Area Rapid Transit

Program : a transit mall of boulevard character with four stations of different character

Architects : Haywood Jordan McCowen & The Oglesby group, Dallas

Landscape architects : Sasaki Associates, Dallas

Site : 1.2 miles along Pacific Avenue and Bryan Street downtown

Design strategies : 1. rich mix of materials and public art such as map sculptures and signature clocks for the stations

2. visual continuity by planting trees with a 3-metre clearance to allow views of store windows

3. double the use of light poles as catenary poles for the trolley wires

4. simple stations each with a steel canopy and its own "welcome mat" - paving of different combinations

Relevance : street elements

Source of information : Landscape Architecture, June 1993



**PRECEDENT : urban studies**  
**CASE 4**

Project : Regeneration of Glasgow City Centre  
 Paper Title : "Glasgow City Centre - Past, Present and Future"

Type : urban design proposal

Author : Mike Galloway and Brian Evans

Strategies : 1. improve pedestrian environment by relating activities to human scale and calming traffic  
 2. introduce a light transit railway

3. introduce the elements of AA "typical great city" - AA famous street, square and green space, a recognizable historic heart, characteristic natural features, city icon or building, a strong urban structure and local character

Relevance : master planning issues

Source of information : Urban Design Quarterly, January 1991

**PRECEDENT : building studies**  
**CASE 5**

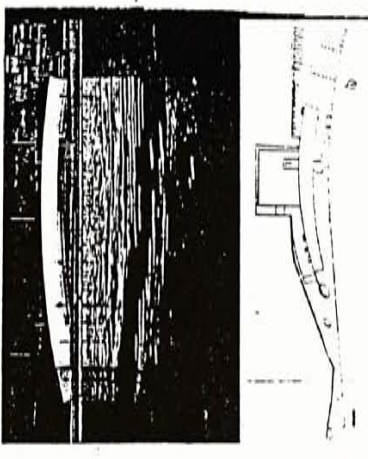
Project : Municipal Museum, Shimosuwa, Japan

Client : Town of Shimosuwa, Nagano

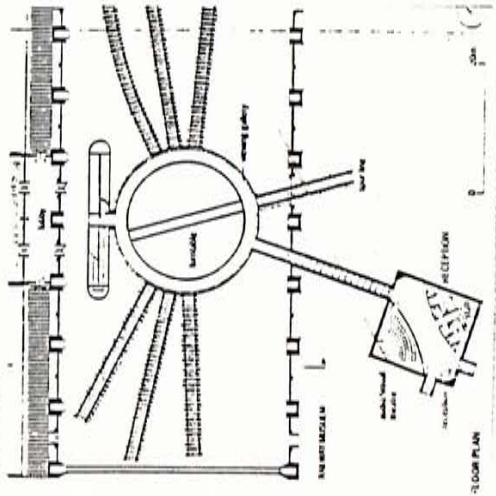
Architect : Toyo Ito

Description : A museum of local history located on a narrow strip of reclaimed land on the shores of Lake Suwa. Permanent exhibits are housed in curvilinear volume, while special exhibition spaces and storerooms occupy a cube to the rear. Circulation is directed along the curving space which follows the line of the lake shore. The scenery of the lake is projected on a glass screen creating an illusion of the exterior landscape, reflecting the museum's subject matter.

Relevance : linear space planning, articulation of volumes



**PRECEDENT : building studies**  
**CASE 6**



Project : Rail Transport Gallery, Cultra, Hollywood, U.S.A.

Client : The Trustees, Ulster Folk and Transport Museum, Cultra

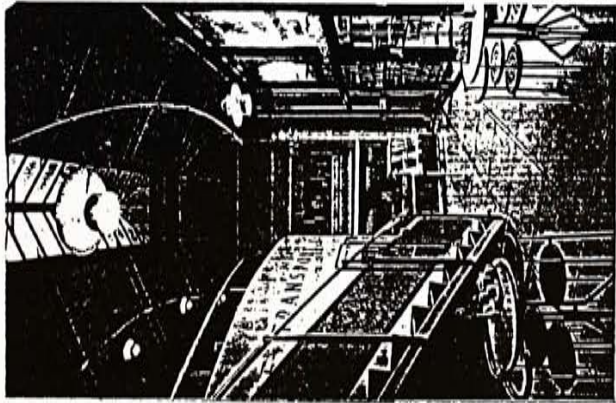
Architect : Ian Campbell

Date of completion : December 1992

Description : "With its hanger-like space and aluminium roof, ...[it]...is modern, industrial and environmentally controlled... it also echoes the great Victorian railway stations and reflects the age of steam... with a turntable at the end to allow exhibits to be changed." ( the Architect's Journal, 14 July 1993 )

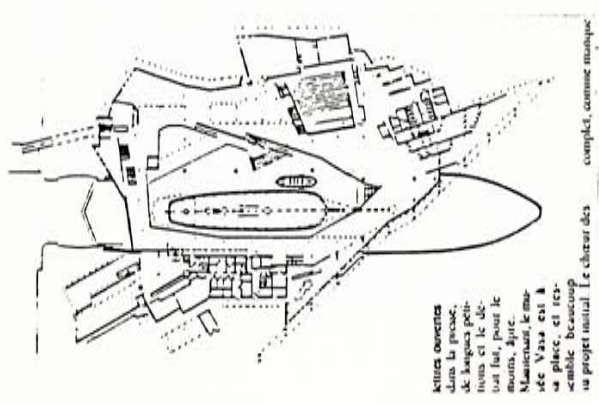
Relevance : display of exhibits, building materials

**PRECEDENT : building studies**  
**CASE 7**

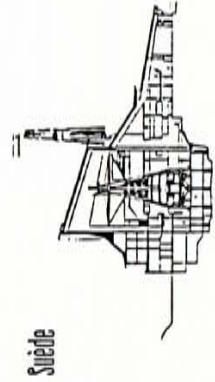


Project : London Transport Museum in Covent Garden's Floral Market, London, U.K.  
 Client : London Transport Museum  
 Architect : Dry Butlin Bicknell  
 Description : Additional floor space was provided in the refurbishment of the museum. It includes three galleries with environmental control, two mezzanines, a newly designed entrance and cafe which can be used by the museum for private functions after opening hours... .. The shop and cafe are open to those who do not want to tour the museum.  
 Relevance : space planning, display of exhibits, integration and organization of programmatic elements

**PRECEDENT : building studies**  
**CASE 8**



Project : Vasa Museum, Stockholm, Sweden  
 Client : Vasa Museum, Stockholm  
 Architect : Marianne Dahlback and Goran Mansson  
 construction period : 1987 - 1990  
 Description : A central main space houses the single most important exhibit, the huge historic Vasa which drowned and stayed on the seabed till 1981. Smaller spaces with secondary and explanatory displays are organized around the central object. Materials and their articulation reflect the museum as a naval structure situated in the central bay of Stockholm. With the play of light and shade interior spaces nevertheless capture the spirit of the ancient Swedish ship. The cafeteria extends to an outdoors terrace facing the waters.  
 Relevance : organization of spaces around a central feature, articulation of light and materials according to desired qualities and needs





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